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ABSTRACT

This report documents,in detail, student achievement in Emergency School Aid Act (ESAA) programs. Its purpose is to provide reference or baseline data for ESAA and other compensatory program administrators and researchers working with disadvantaged students. The data tables and figures can be used to answer the following types of questions: (1) How does the achievement score distribution of students in some programs of interest compare with the achievement level of disadvantaged students in a reference sample (ESAA sample)? (2) Have the within-year achievement gains of a given set of students met the gain expectation derived from ESAA students of similar initial ability? and (3) Over a two or three year time span, have the students made gains meeting the expectation provided by a reference sample of ESAA students. The ESAA evaluation was conducted on a sample of schools receiving ESAA funds. For each ESAA school, a control school from the same district which received no ESAA funds but was otherwise comparable to the ESAA funded school was also selected. Within each school, three grades were selected to be analyzed. These were the 3rd, 4th, and 5th, grades at the elementary level, and the 10th, 11th, and 12th grades at the secondary level. The schools from which the students were sampled had a large percentage of disadvantaged students, a large percentage of minority enrollment, and low reading and mathematics achievement test scores. (Author/AM)

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THE DISTRIBUTION OF ACHIEVEMENT SCORES IN A DISADVANTAGED POPULATION: DATA FROM A NATIONAL SAMPLE OF STUDENTS IN DISTRICTS RECEIVING EMERGENCY SCHOOL AID ACT (ESAA) FUNDS

Fred E. Cromer

March 1978

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NOTE

This report covers work performed during the ESAA Evaluation contract extension period, September 1977 through March 1978. During this period, John E. Coulson was the Project Director; Fred E. Cromer was Manager for Data Analysis; Ronald A. Carriere, William J. Doherty, Sally D. Hanes, and Anne H. MacQueen were the principal analysts; Eric Nelson-Lund was the project programmer; Suzie R. Navarrette was the data processing technician; Frank Tierney provided editorial support in report preparation; and Ethel Rothstein was project secretary. Clarence Bradford served as a consultant and participated in the data analyses.

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I. INTRODUCTION

Much of the research and program experimentation in education is directed toward compensatory programs having as their focus the improvement in achievement of educationally disadvantaged students. The evaluation of such improvement typically is based upon achievement measures that were normalized on populations substantially different from the usual research population. Although it is well known that a disadvantaged population does not perform at the achievement level of a national normative population, the precise pattern of underachievement is not nearly so clear. Consequently, there is little information about what constitutes a realistic goal for a disadvantaged population's improvement in achievement within a specified time period.

Brief descriptive summaries of the sample ESAA students' achievement were presented in reports for each of the three evaluation years. The present report documents in greater detail the ESAA students' achievement. Such documentation is intended to characterize more comprehensively the reading and mathematics attainment of the sample students, and to provide reference or baseline data for ESAA and other compensatory program administrators and researchers working with disadvantaged students. The data tables and figures contained in this report, all of which are presented in numerical order following the text, and as excerpts within the text, should help program administrators and researchers answer the following types of questions:

- How does the achievement score distribution of students in some programs of interest compare with the achievement level of disadvantaged students in a reference sample, i.e., in the ESAA sample?

- Have the within-year achievement gains of a given set of students met the gain expectation derived from ESAA students of similar initial ability?

- Over a two or three-year time span, have the students of interest made gains meeting the expectation provided by a reference sample of ESAA students?

(Before one tries to use these tables as reference points for a disadvantaged population, their limitations should be noted. Data are available only for grades 3, 4, 5, 10, 11, and 12. Only levels 2 and 3 of the California Achievement Test (CAT), level-5 CAT mathematics, and level-2 of the Iowa Silent Reading Test (ISRT) were used. These tables are not directly applicable to situations where other tests are used, except for the reading tests included in the Anchor Test Study, which will be discussed later. It should also be noted that in the ESAA sample elementary students did not take the full mathematics test. One specific section of one subscale was omitted (the 15-item "problems" section for the Problems and Concepts subscale); however, in the tables which follow, adjustments were made to equate the ESAA total math percentiles to the total math percentiles reported by the publisher. The tests were administered in November and May, so comparisons are most accurate for tests administered close to those dates.

A. DESCRIPTION OF THE ESAA EVALUATION SAMPLE

The ESAA evaluation was conducted on a sample of schools receiving ESAA funds. For each ESAA school, a control school from the same district which received no ESAA funds but was otherwise comparable to the ESAA-funded school was also selected. Within each school, three grades were selected to be analyzed. These were the 3rd, 4th, and 5th grades at the elementary level, and 10th, 11th, and 12th grades at the secondary level. The student samples were drawn randomly across classrooms within grades.

An analysis of the achievement test score distributions for the 1974-75 and 1975-76 school year evaluations revealed no substantial differences; therefore, the data from these two years were pooled so as to enlarge the data base used in constructing these baseline data, and to increase stability of the results. In certain instances that will be noted, the Basic and Pilot Elementary samples were also pooled in order to provide single elementary and secondary level tables.

Over half the districts included were from HEW regions IV (Southeast) and VI (South Central), which reflected the ESAA Basic and Pilot award universes'

concentration in those regions. However, overall, there was a fairly broad geographical representation, especially at the elementary level.

Approximately 45 percent of the Basic Elementary sample students were members of minority groups, while 35 percent of the Basic Secondary and over 80 percent of the Pilot Elementary students were minority group members. Black students constituted the largest minority group with Hispanic students a distant second in numbers. In fact, only in the Pilot Elementary sample were there an appreciable number of Hispanic students.

All the groups had substantial numbers of disadvantaged students, as indicated by the percentages of students judged eligible for Elementary and Secondary Education Act (ESAA) Title I services. The largest percentage of Title I-eligible students was found in the Pilot Elementary schools (65 percent); the corresponding percentages for the Basic Elementary and Basic Secondary samples were 43 and 23 percent, respectively.

The reading and mathematics achievement test scores averaged around the 20th and 30th percentile, based upon national norms. More data concerning achievement levels will be presented in the tables which follow. A detailed description of the demographic characteristics of the districts and schools from which this sample of students was obtained is available in the three yearly ESAA evaluation reports (Coulson, et al, 1974; Coulson, et al, 1975; Coulson, et al, 1976).

In summary, the schools from which these students were sampled can be characterized as having a large percentage of disadvantaged students, a large percentage of minority enrollment, and low reading and mathematics achievement test scores. In these respects, they can be considered similar to other schools that are eligible to receive ESAA or other compensatory education funds. For schools with these general characteristics, the tables presented here should provide a more meaningful set of comparative benchmarks than the usual norms based on a nationally representative sample. The latter type of comparison can lead to unrealistic expectations concerning achievement gain and thus hide what may actually be a beneficial program.

B. DESCRIPTION OF TABLES AND FIGURES, AND ILLUSTRATIVE EXAMPLES OF THEIR USES

To simplify reading of the text, all tables for this section are grouped at the end of the section, and only excerpts from selected tables are included in the text proper for purposes of illustrating how the tables might be used to obtain different kinds of information about the ESAA students' performance.

1. PERCENTILE TABLE DESCRIPTIONS (GENERAL)

Tables 1 through 26 describe fall and spring achievement test scores for the ESAA cross-sectional sample of disadvantaged students at grades 3, 4, 5, 10, 11, and 12. This sample can be used as a reference group for evaluating the achievement status of other disadvantaged samples at a particular point in the school year. To provide the detail necessary for such comparisons, percentile rank equivalents are presented for each of the publisher's percentiles for fall and spring administrations, for each test level and form, and at each grade.

At the elementary level, the California Achievement Tests (CAT) published by CTB/McGraw-Hill were used. Levels 2 and 3 were administered at the appropriate grade levels for both reading and mathematics. One short, 15-item subtest was not used in the mathematics test. This was the Problems section of the Problems and Concepts Mathematics Subscale. However, the publisher provided normative information for the composite that was used, and appropriate adjustments were made to equate the ESAA math composite percentiles to the full scale percentiles reported by the publisher. Consequently, the percentile comparisons reported in the tables represent percentile rankings for the publisher's total mathematics score.

The following hypothetical examples illustrate the use of Tables 1-16:

Hypothetical Illustration 1: A compensatory program administrator has scores from the fall administration of the California Achievement Test (CAT). This program involves only 3rd grades, and a reported reading score at the publisher's 26th percentile is of interest. Table 1 reveals that this corresponds to the 39th percentile in the ESAA sample. For a math score at the publisher's 20th percentile, an ESAA percentile of 35 was found (Table 5). Thus, while the obtained reading and mathematics scores were only at the 26th and 20th percentiles

on the publisher's norms, they are at the 39th and 35th percentiles when compared to a more representative reference group. Excerpts from Tables 1 and 5 appear below:

Excerpt 1: Excerpts from Tables 1 and 5

Table 1 Excerpt. Fall, Total Reading Scores: Grade 3, Test-Level 2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1	44	60	1	1	48-49	60
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
24	36	[illegible]3	83	26	41	74	84
25	37	74-76	84	27	42	75	85
26	39	77	85	28	43	76	86
27	40	78-79	86	29	44	77	87
28	41	80-82	87	30	45	78-79	88

Table 5 Excerpt. Fall, Total Math Scores: Grade 3, Test-Level 2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	39	58	1	1-4	40	52
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
18	32	62	78	18	29	58	72
19	33	63	79	19	30	59	72
20	35	64-65	80	20	31	60	74
21	36	66-67	81	21	32	61	75
22	37	68	82	22	33	62	76

Hypothetical Illustration 2: In a compensatory program at the secondary level, the following spring reading and mathematics scores are of interest:

10th grade - 21st percentile reading, 28th percentile math
11th grade - 24th percentile reading, 25th percentile math
12th grade - 33rd percentile reading, 31st percentile math

The corresponding percentiles based on the ESAA sample are:

10th grade - 46th reading (Table 21), 65th math (Table 24)
11th grade - 48th reading (Table 22), 61st math (Table 25)
12th grade - 60th reading (Table 23), 70th math (Table 26)

This illustration reveals a situation where scores that were only at roughly the first quartile when compared to the publisher's norm sample actually are at the median or above for the ESAA sample. Excerpts from these tables appear below:

Excerpt 2: Excerpts from Tables 21-26

Table 21 Excerpt. Spring, Total Reading Scores: Grade 10, Test-Level 2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	40-41	66	1	1-3	40-41	66
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
19	43	67-68	87	19	43	71-72	85
20	44	69-71	88	20	44	73	86
21	46	72	89	21	46	74	87
22	47	73	90	22-23	47	75-76	88
23	48	74-75	91	24	49	77-78	89

Table 22 Excerpt. Spring, Total Reading Scores: Grade 11, Test-Level 2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	39-40	64	1	1-3	45	68
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
22	46	70-71	86	23-24	46	81-83	90
23	47	72-73	87	25	48	84-85	91
24	48	74-76	88	26	49	86	92
25	49	77	89	27	51	87-88	93
26	50	78-79	90	28-29	52	89-91	94

Table 23 Excerpt. Spring, Total Reading Scores: Grade 12, Test-Level 2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	40	67	1	1-4	42-43	67
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
30	58	90-91	96	31	59	91-93	97
31	59	92-93	97	32-33	60	94-96	98
32-33	60	94-96	98	34-35	61	97-99	99
34-35	61	97-99	99	36	62		
36	62			37	63		

Table 24 Excerpt. Spring, Total Math Scores: Grade 10, Test-Level 5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-8	49	80	1	1-7	46-47	77
.	.			.	.		
.	.			.	.		
.	.			.	.		
25	63			25-26	61		
26-27	64			27	63		
28	65			28	64		
29-30	66			29	65		
31	67						

Table 25 Excerpt. Spring, Total Math Scores: Grade 11, Test-Level 5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-10	46-47	77	1	1-8	44	74
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
23	59	95-96	98	22	57	89-90	95
24	60	97-99	99	23	58	91-92	96
25	61			24	59	93-95	97
26-27	63			25	60	96-97	98
28	64			26-27	61	98-99	99

Table 26 Excerpt. Spring, Total Math Scores: Grade 12, Test-Level 5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-16	50-51	80	1	1-14	46-47	77
.	.			.	.		
.	.			.	.		
.	.			.	.		
28	68			28-29	65		
29-30	69			30	66		
31	70			31-32	67		
32-33	71			33	68		
34	72			34-35	69		

Hypothetical Illustration 3: A 5th-grade, fall, Form B mathematics score at the publisher's 38th percentile corresponds to an ESAA percentile of 56 (Table 8). A 4th grade, fall, level-2, Form A reading score at the 52nd percentile of the publisher's norms corresponds to the 70 percentile in the ESAA sample (Table 2). A 4th-grade, spring, Form B mathematics score at the 16th percentile of the publisher's norms corresponds to the ESAA 34th percentile (Table 13). Exerpts from Tables 2, 8, and 13 appear below:

Excerpt 3: Excerpts from Tables 2, 8, and 13

Table 2 Excerpt. Fall, Total Reading Scores: Grade 4, Test-Level 2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	40-41	61	1	1-3	42	61
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
7	13	48-49	68	8	15	48-49	69
8	14	50	69	9	17	50	70
9	15-17	51-52	70	10	18	51-52	72
10-11	18	53-54	71	11	20	53	73
12	19	55	72	12	21	54	74

Table 8 Excerpt. Fall, Total Math Scores: Grade 5, Test-Level 3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	40-41	54	1	1-3	40-41	59
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
35	50	87-88	87	36	54	92-94	93
36	51	89-91	88	37	55	95	94
32-38	52	92	89	38	56	96	95
39	53	93	90	39	57	97	96

Table 13 Excerpt. Spring, Total Math Scores: Grade 4, Test-Level 3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	42-43	56	1	1-3	42-43	60
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.
14	29	61	69	13	32	60-61	74
15	30	62	70	15	33	62-63	75
16	31	63	71	16	34	64-65	76
17	32	64	72	17	35	66	77
18	34	65-66	73	18-19	37	67-68	78

2. SEPARATE PERCENTILE TABLE DESCRIPTIONS FOR ESAA BASIC AND PILOT SAMPLES

Tables 27-42 list the percentiles for the Basic Elementary and Pilot Elementary samples separately. This will allow administrators or researchers to use tables more closely tailored to their particular school characteristics. The user can determine from the sample description section (A), above, whether the characteristics of the school of interest are more closely approximated by the Basic or Pilot schools and then use the appropriate tables to determine the ESAA percentile corresponding to a given publisher's percentile. If it is not clear which to use, it is recommended that the more general tables (1-26) be used.

For Tables 27-42, the title indicates grade and test-levels and whether the table refers to the Basic or Pilot sample. In each case, the first column contains publisher's percentile scores (at five-percent intervals); the second column the Form A, fall ESAA percentile corresponding to that publisher's percentile point; and the third column the Form A, spring ESAA percentile corresponding to the given publisher's percentile. Similar ESAA percentiles for Form B are reported in the last two columns.

As an illustration, suppose a compensatory program administrator is dealing with an elementary school which has a high percentage of disadvantaged students (90 percent), and has yet to implement a program designed to overcome the adverse effects of minority group isolation. This administrator could choose to use the Pilot sample tables since this school is clearly like the Pilot schools in many respects. A 5th-grade, fall, mathematics publisher's score at the 10th percentile would correspond to a Pilot ESAA percentile of 20 (Table 34). A 3rd-grade, spring reading score at the 20th percentile of the publisher's norms would correspond to 42 for the Pilot ESAA sample (Table 27).

As a second illustration, consider the case of a researcher who wishes to evaluate a Basic Elementary ESAA program. The obvious choice for a comparison group would be the Basic Elementary sample. A 4th-grade, spring reading score at the 40th percentile of the publisher's norms would correspond to a Basic ESAA percentile of 59 (Table 37). A 5th-grade, fall mathematics score at the 22nd percentile would correspond to a Basic ESAA percentile of approximately 30 (Table 42). Excerpts from the tables used in these illustrations appear below:

Excerpt 4: Excerpts from Tables 27, 34, 37, and 42

Table 27 Excerpt. Total Reading Scores: Pilot, Grade 3, Test-Level 2

Pub. Percentile	FORM A		FORM B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	11	11	12
10	26	23	26	27
15	34	33	36	37
20	42	41	45	45
25	48	48	50	50
30	54	58	56	56

Table 34 Excerpt. Total Math Scores: Pilot, Grade 5, Test-Level 3

Pub. Percentile	FORM A		FORM B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	14	15	15
10	20	24	27	30
15	31	31	34	39
20	36	41	45	45

Table 37 Excerpt. Total Reading Scores: Basic, Grade 4, Test-Level 3

Pub. Percentile	FORM A		FORM B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	9	10	6
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
30	49	47	48	48
35	54	55	56	56
40	58	59	60	61
45	63	65	67	65

Table 42 Excerpt. Total Math Scores: Basic, Grade 5, Test-Level 3

Pub. Percentile	FORM A		FORM B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	10	10	10	12
10	17	19	19	22
15	26	24	25	29
20	30	32	32	34
25	37	39	38	41
30	41	43	41	47

3. LONGITUDINAL GAINS

While the tables discussed above may provide suitable benchmarks for assessing the performance of similar students at a single testing point, they may not provide the best comparison data for assessing the achievement gains of some group of interest. For this latter purpose, the best benchmark data available from the ESAA evaluation are those based on the study's longitudinal sample, i.e., the subset of students who were tested in the 3rd grade during the first year of the evaluation, and who were also tested in succeeding grade levels in the second and third years of the study.

Figures 1-4 show the profiles of ESAA achievement scores for the longitudinal and Year Three cross-sectional samples for both publisher's (CAT) and ESAA scale scores for the elementary sample. There were too few secondary students in the longitudinal sample to allow a meaningful longitudinal profile to be constructed. The ESAA scale scores are scores developed in an achievement test restandardization using the ESAA sample as the norm group and are discussed in more detail in Doherty (1977). These figures allow an assessment of scale score changes over one or more years of school. For example, the ESAA longitudinal sample showed a gain of approximately 40 ESAA scale points or 20 CAT scale points in reading during the 3rd grade (Figures 1 and 3).

As a further refinement, the longitudinal sample was broken into decades based on the fall testing in Year One. That is, ten groups were formed by breaking

the sample at each decile. The nth decile is the score below which n percent of the sample falls, i.e., ten percent of the sample have scores below the first decile, decade two contained students scoring between the first and second deciles, etc., and decade ten contained students scoring above the ninth decile. These groups were then followed for the six test periods (pretest and posttest) in each of three years. Figures 5-8 display the profiles of reading and mathematics for these groups.

An illustration of the use of these figures follows: Suppose the 3rd grade in some school of interest has average reading and mathematics scores which are at the 23rd and 19th percentiles on the publisher's norms. Tables 1 and 5 indicate these scores are at the 35th and 32nd percentiles based on the ESAA sample. To compare changes in achievement scores in this school to a comparable ESAA reference group, use the profile for the fourth decade (between 30th and 40th percentile in the ESAA sample) of students displayed in Figures 5-8. This group has a 22-point gain in reading and a 27-point gain in mathematics during the 3rd grade, based on publisher's scaled scores (Figures 7-8). For ESAA scaled scores, the gains were 40-points and 77-points (Figures 5 and 6).

As a second illustration, consider the case of a school whose students score at approximately the sixth percentile in reading on publisher's norms. This would place most of the grades in the second group, based on the ESAA sample (Tables 1-8), so the second decade profile on Figures 5-8 would provide a representative comparison group for these schools. This group displayed CAT reading gains of 23, 21, and 7 during the 3rd, 4th, and 5th grades (Figure 7); while the corresponding ESAA scale gains were 40, 31, and 8 (Figure 5).

4. PERCENTILE RANKS OF GAIN SCORES

Tables listing percentile ranks of gain scores are not generally available, since one usually refers to norm tables in reference to a particular test administration and since tests are not normally administered more than once in a given year. However, in program evaluations, gains are often of greater interest than scores on a particular test administration. To assist in the interpretation of gains, percentile ranks relating to within year scale score gains were calculated.

Figure 1. Profile of ESAA Scale Reading Scores

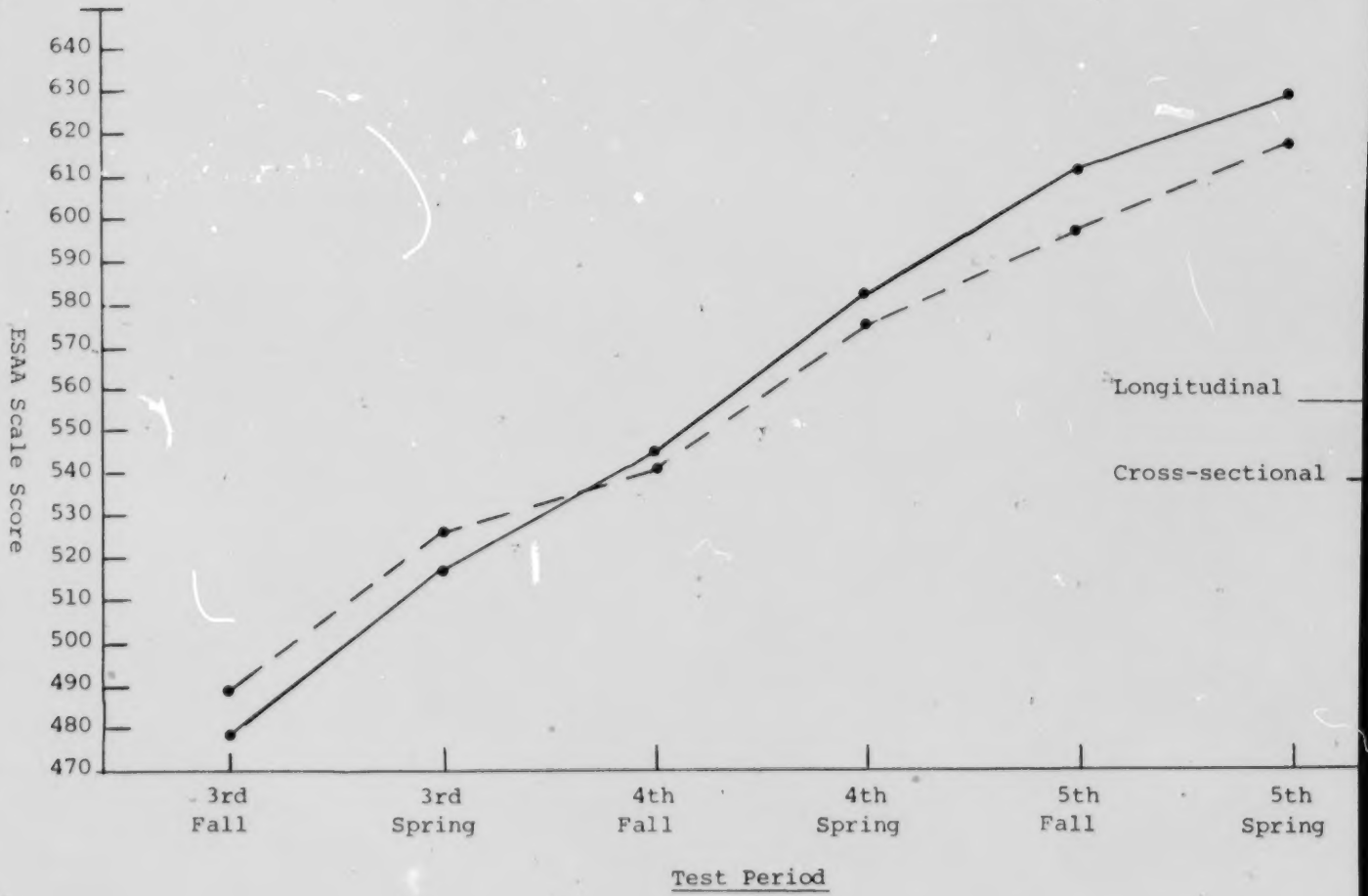


Figure 2. Profile of ESAA Scale Math Scores

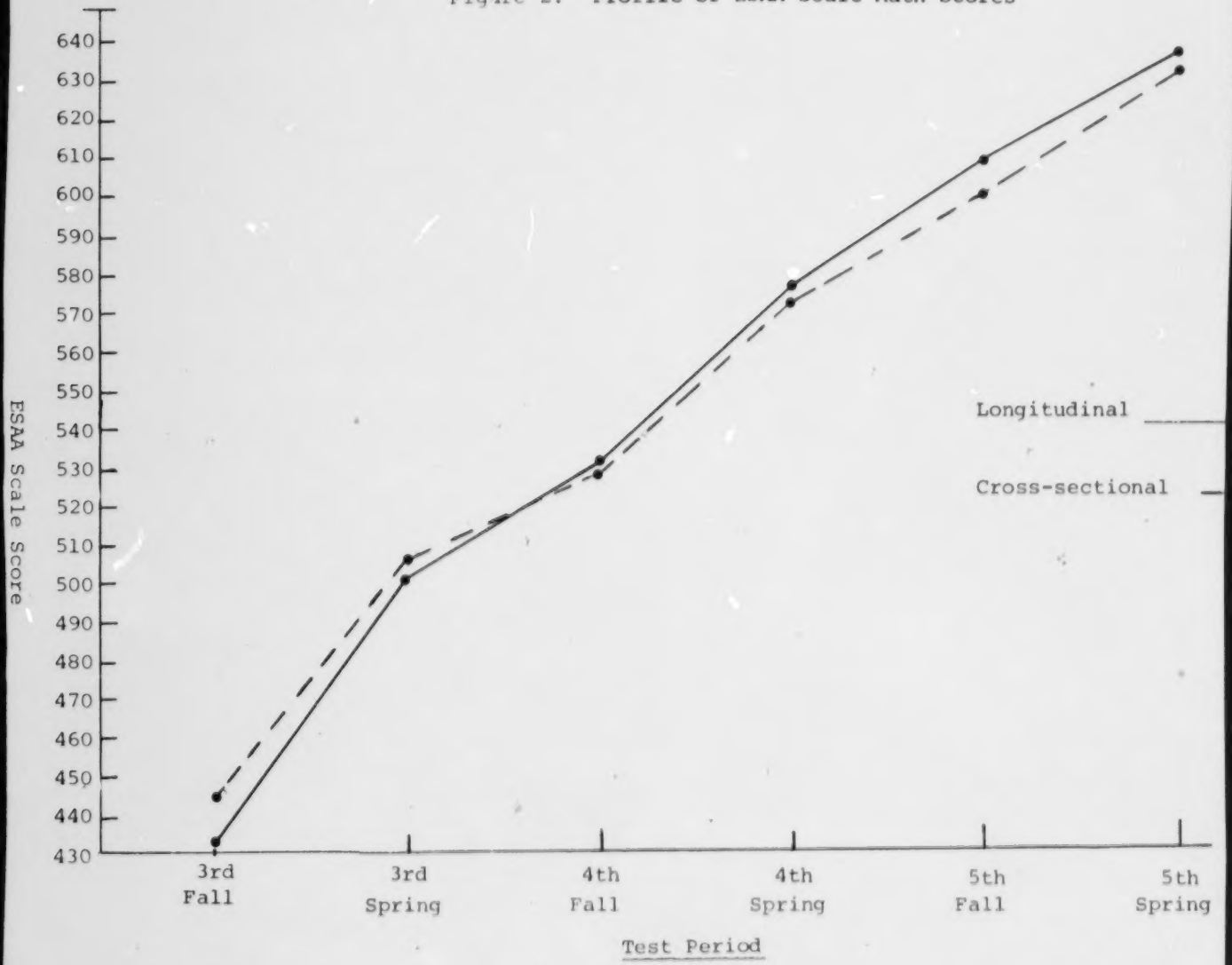


Figure 3. Profile of CAT Scale Reading Scores

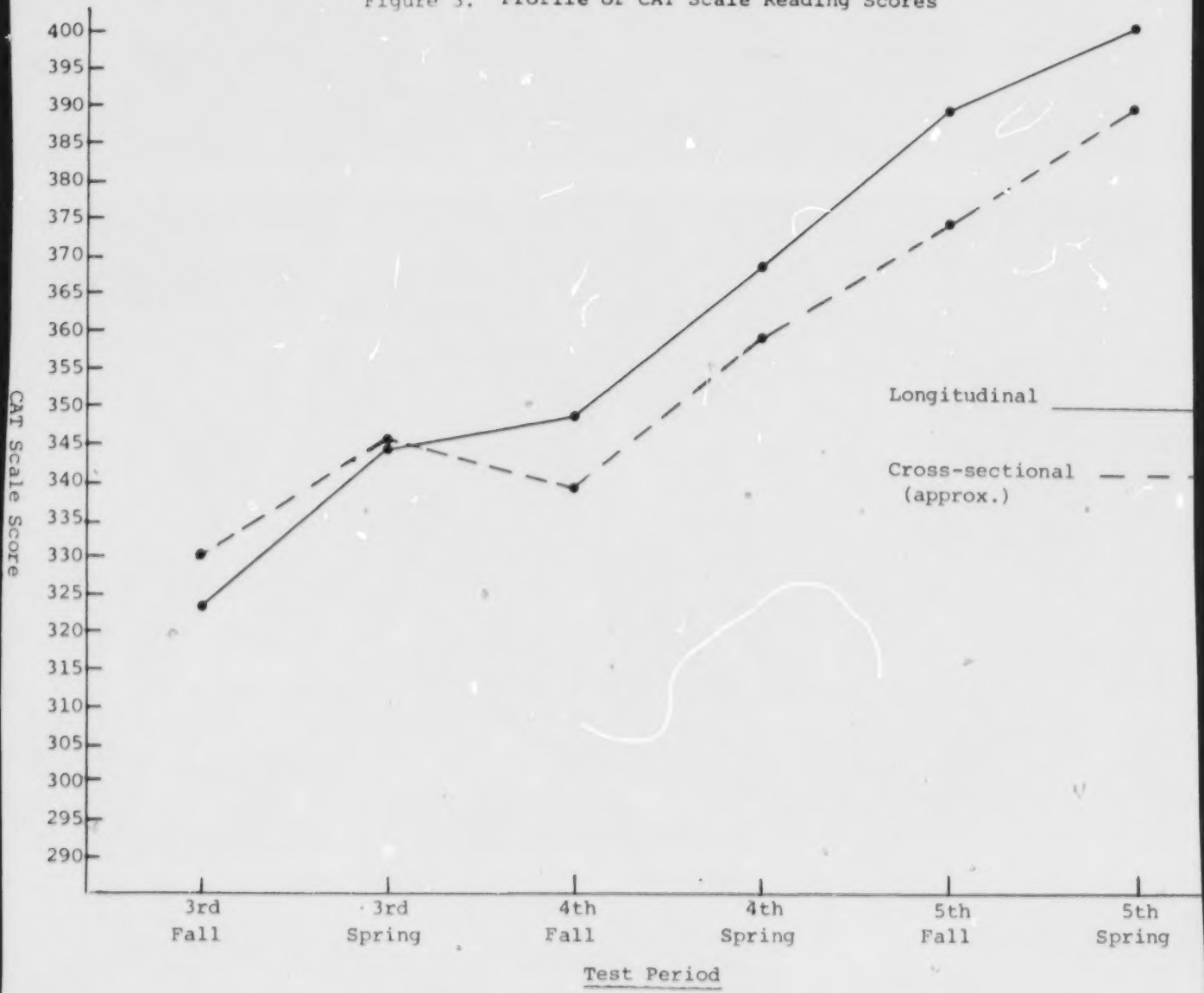


Figure 4. Profile of CAT Scale Math Scores

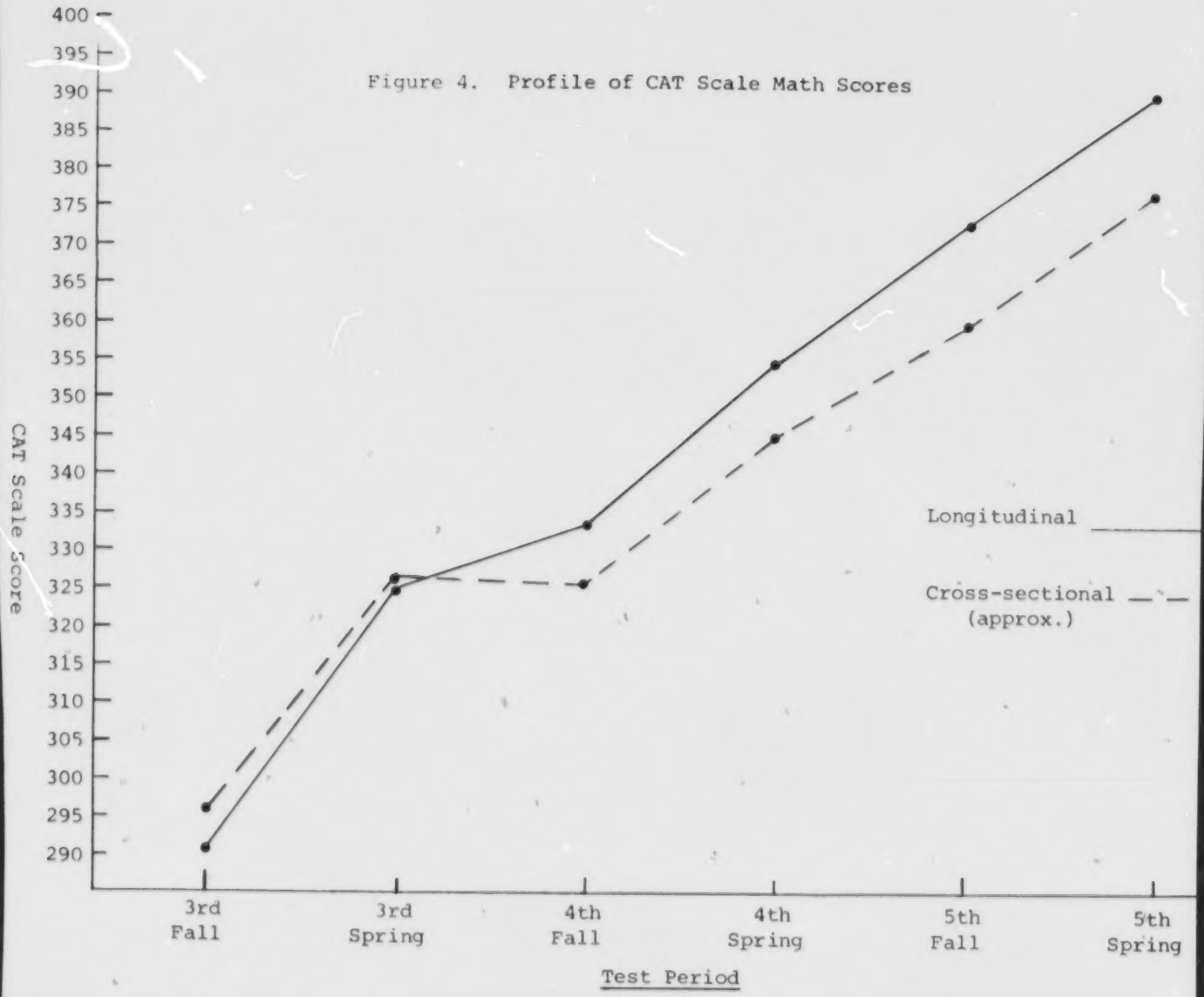


Figure 5. Longitudinal Profile of ESAA Scale Reading Scores for Each Decade (N=1574)

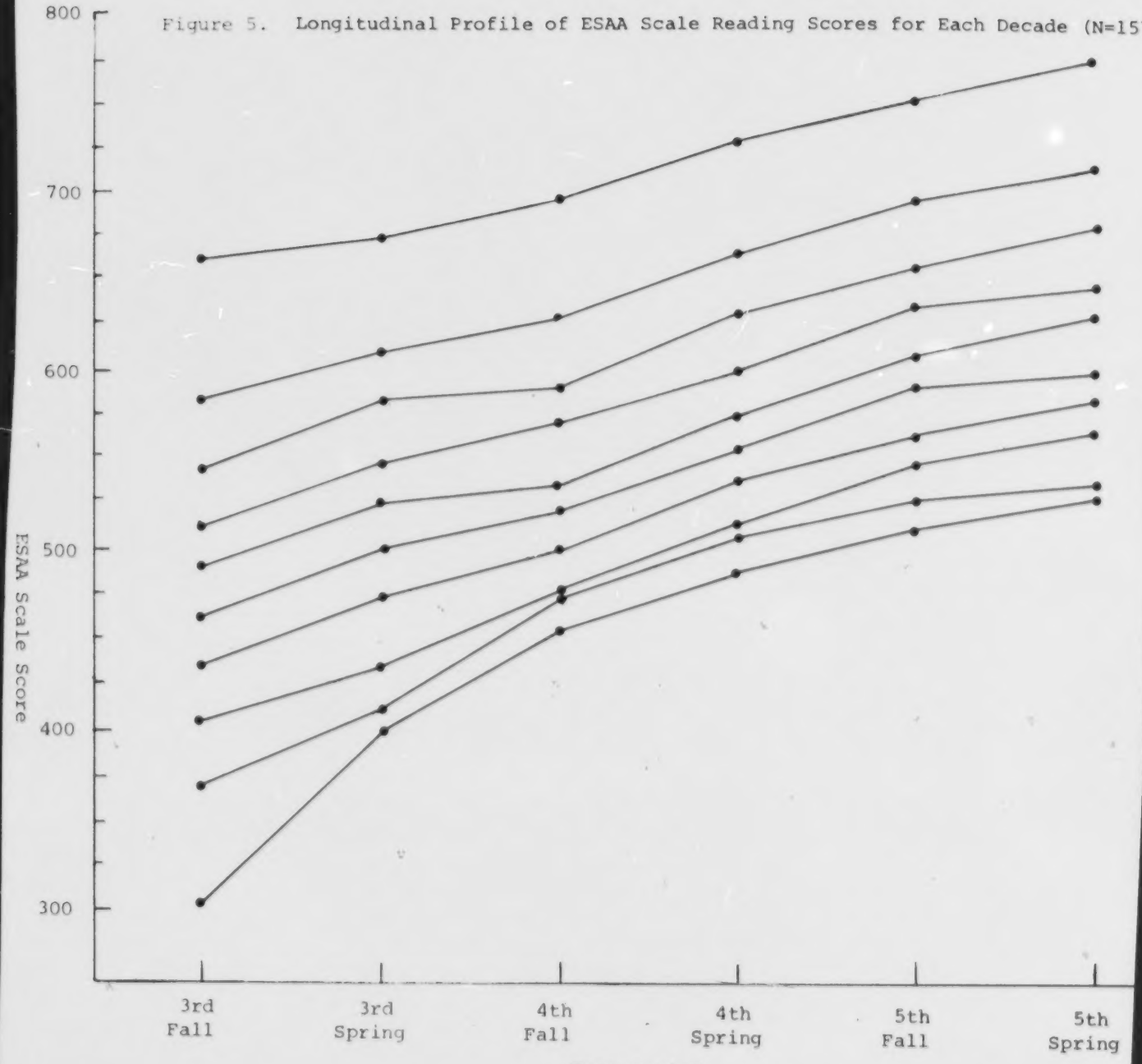


Figure 6. Longitudinal Profile of ESAA Scale Math Scores for Each Decade (N=1574)

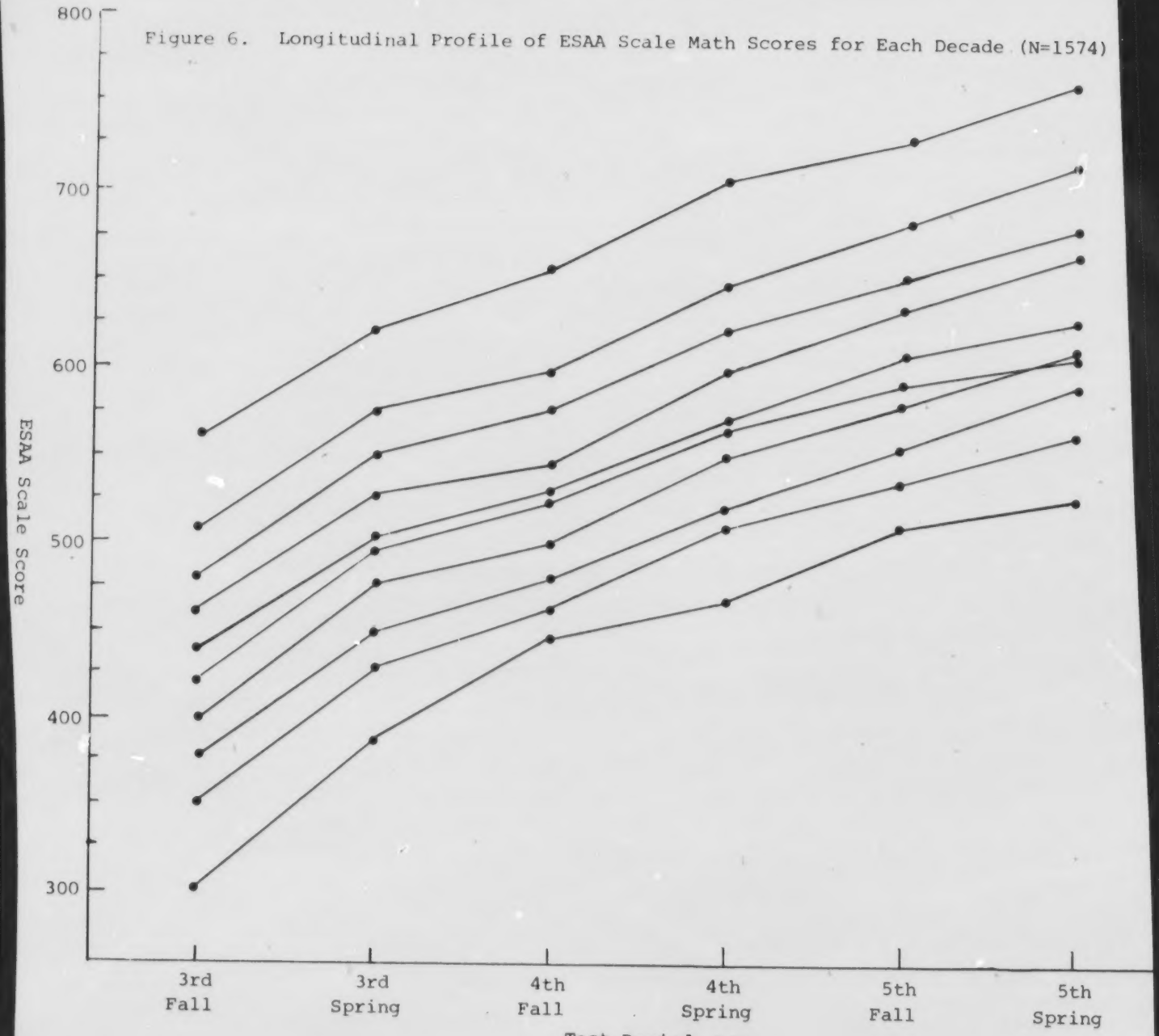


Figure 7. Longitudinal Profile of CAT Scale Reading Scores for Each Decade (N=1574)

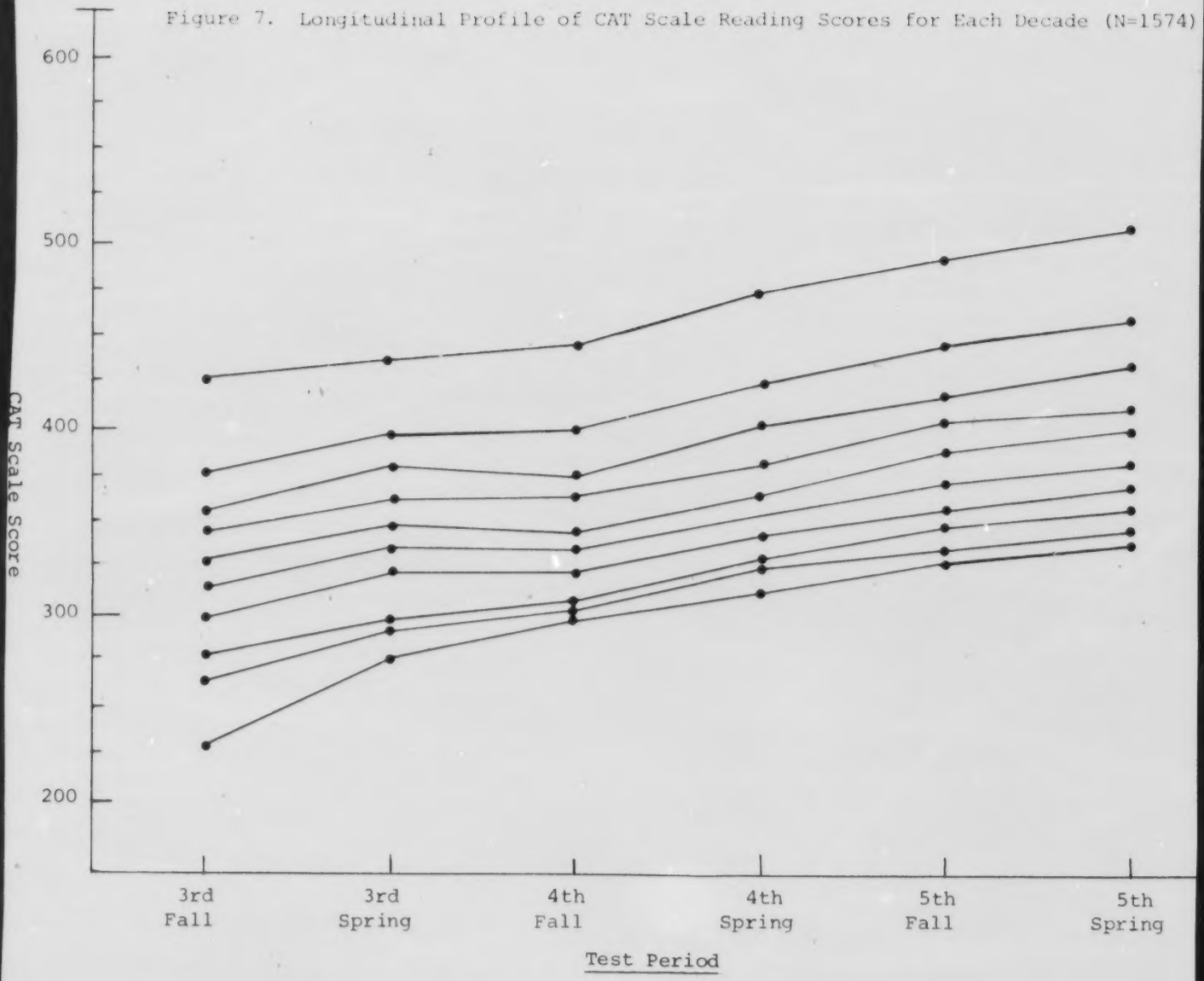
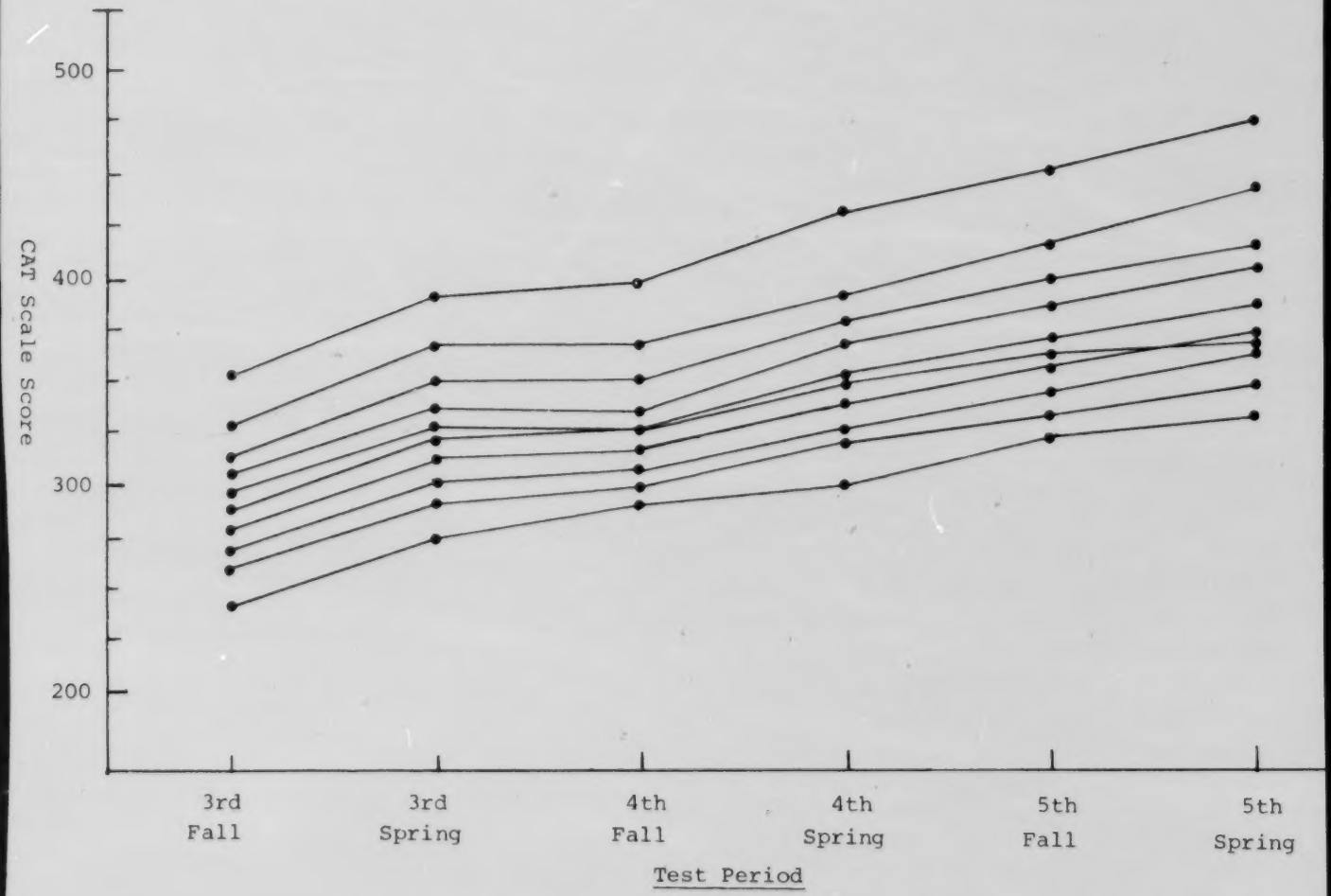


Figure 8. Longitudinal Profile of CAT Scale Math Scores for Each Decade (N=1574)



Tables 43-49 list the percentiles associated with the various gain scores in the ESAA sample. From these tables an educational researcher or a compensatory program administrator can determine how a given gain in achievement compares to the achievement gains registered by a given reference group (the ESAA sample). The table titles indicate the subject area and grade level for each table. The first two columns list ESAA scale gain (in five-point increments) and the percentile associated with that gain. Columns three and four display similar information for the publisher's scale scores. Table 49 contains only percentiles associated with publisher's scale gains for the entire secondary sample since ESAA scale scores were not calculated for secondary students.

As an illustration, suppose a 3rd-grade reading gain of 21 publisher's scale points was observed. Table 43 reveals that this is at the 55th percentile; that is, 55 percent of the ESAA 3rd-grade sample registered a smaller gain. A 5th-grade mathematics gain of five points on the publisher's scale is at the 38th percentile (Table 48). A reading gain of 24 ESAA scale points in the 4th grade is at approximately the 45th percentile (Table 44). A mathematics gain of 11 publisher's scale points at the 12th grade has a percentile rank of approximately 57 (Table 49). That is, within the ESAA 12th-grade sample, 57 percent of the students gained fewer than 12 points in their scaled mathematics score. Excerpts from the tables referenced in this illustration appear below:

Excerpt 5: Excerpts from Tables 43, 48, and 49

Table 43 Excerpt. Distribution of Gain Scores: Reading, Grade 3

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	22	No Gain	24
5	25	5	32
10	28	10	32
15	32	15	33
20	36	20	55
25	40	25	56
30	44	40	56

Table 48 Excerpt. Distribution of Gain Scores: Math, Grade 5

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	28	No Gain	30
5	32	5	38
10	35	12	38
15	38	15	45

Table 49 Excerpt. Distribution of Gain Scores: Secondary Sample

Publisher's Scale Gain		Grade 12	
		Reading Percentile Rank	Math Percentile Rank
No Gain		53	47
5		68	52
10		81	57
15		88	62

5. ANCHOR TEST STUDY COMPARISONS

When students take different achievement tests it is not possible to directly compare scores. To alleviate this problem, the Office of Education awarded a contract to Educational Testing Service to conduct an Anchor Test Study. In this study, one reading test (called the Anchor Test) was selected as a common base or anchor, and conversion tables were developed for equating scores on other selected tests to the Anchor Test. Since the California Achievement Test (CAT) was included in that study, it is also possible to link percentiles based on the ESAA norms for the CAT to the various reading tests included in the Anchor Test Study. Tables 50-51 provide these linkages for total reading scores in grades 4 and 5. The Anchor Test Study involved only grades 4, 5, and 6, so it overlapped the ESAA sample only on grades 4 and 5. Values which could not be obtained directly from the Anchor Test Study tables were arrived at by interpolation.

The tests included in Tables 50-51 are the Anchor Test (ANCH), the California Achievement Test--using both the publisher's (CAT) and ESAA norms (ESAA)--the Comprehensive Tests of Basic Skills (CTBS), the Gates-MacGinitie Reading Tests (GMT), the Iowa Tests of Basic Skills (ITBS), the Metropolitan Achievement Tests (MAT), the Stanford Achievement Tests (SAT), the SRA Achievement Series (SRA), and the Sequential Tests of Educational Progress (STEP). The first column of the table lists ESAA percentile points with the corresponding percentile points on the other tests listed in the remaining columns.

As an illustration of the use of these tables, suppose a school has administered the Metropolitan Achievement Test (MAT) to its students. A reported score at the 10th percentile in the 4th grade would correspond to the 35th percentile in the ESAA sample (Table 50). A 5th-grade score at the 19th percentile on the MAT norms would correspond to the 45th percentile in the ESAA sample (Table 51). Scores on other tests can be linked to the ESAA sample in a similar manner. Excerpts from Tables 50-51 appear below:

Excerpt 6: Excerpts from Tables 50-51

Table 50 Excerpt. Approximate Comparison of Selected ESAA Percentiles with Anchor Test Percentiles and Corresponding Publisher's Percentile Ranks on Total Reading Scores: Grade 4

ESAA	ANCH	CAT	CTBS	GMT	ITBS	MAT	SAT	SRA	STEP
99	95	96	95	94	94	93	95	95	95
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
45	20	21	23	22	20	16	14	18	17
40	17	18	19	18	16	13	13	15	14
35	13	15	15	13	12	10	11	12	11
30	10	12	12	8	8	7	9	10	8
25	8	10	11	7	7	6	8	8	6
20	6	7	8	6	6	4	6	6	5

Table 51 Excerpt. Approximate Comparison of Selected ESAA Percentiles and Corresponding Publisher's Percentile Ranks on Total Reading Scores: Grade 5

ESAA	ANCH	CAT	CTBS	GMT	ITBS	MAT	SAT	SRA	STEP
99	98	98	98	97	97	98	96	97	97
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
55	26	28	27	24	21	26	17	24	23
50	23	25	24	21	18	22	15	21	20
45	20	22	21	19	16	18	13	19	17
40	18	19	18	16	14	16	11	16	14
35	15	16	16	13	12	14	10	14	12

C. ADDITIONAL ILLUSTRATIVE USES OF TEST TABLES AND FIGURES IN THIS DOCUMENT

As the illustrations above indicate, the tables presented in this document can be used in various ways to compare other groups of students with the ESAA sample. These tables can be used to make comparisons based on single administrations, to make comparisons of gains (more than one administration), or to chart academic progress. The use of these tables for each of the above purposes will now be discussed in more detail.

1. SINGLE ADMINISTRATION COMPARISONS

Step 1. Decide whether to use the Basic or Pilot subsamples as the appropriate comparison group.

Section ( ), above, describes some of the differences between the Basic and Pilot Grant schools. If the school (or class) which is of interest seems to be like the Basic Grant schools in the sample, use Tables 35-42. If the Pilot sample more closely approximates the condition, use Tables 27-34. If more detail is wanted, or if it is not clear which of these subsamples more closely approximates the school of interest, use the general Tables 1-26.

Step 2. Decide which test to use for the comparison.

If the California Achievement Test (CAT) was administered at the elementary level, or the Iowa Silent Reading Test at the secondary level, the tables can be used directly. Otherwise, one must check whether one of the reading tests administered in the Anchor Test Study was used. If so, approximate reading percentiles are available in Tables 50 and 51 for grades 4 and 5. No comparable mathematics tables are available.

Step 3. Choose the proper grade level.

Separate tables are provided only for grades 3, 4, and 5 at the elementary level, and grades 10, 11, and 12 at the secondary level. No direct comparisons with the ESAA samples are possible for other grade levels.

Step 4. Choose appropriate test time.

The ESAA sample had tests administered in both the fall and spring of the school year. If the single administration for which the comparison is being made was conducted in the first half of the school year, compare with the columns listing the fall test period data; otherwise, use the columns for the spring test period. The comparisons are most accurate for tests administered in November and May.

Step 5. Select test level.

Comparisons should be made so that the scores of interest were obtained on the same grade at the same level of the test. Direct comparisons are possible (Tables 1-42) for grade 3, level-2; grade 4, level-2 (fall only); grade 4, level-3; grade 5, level-3; grade 10, CAT level-5; grade 10, ISRT level-2; grade 11, CAT level-5; grade 11, ISRT level-2; grade 12, CAT level-5; and grade 12, ISRT level-2.

Step 6. Determine the appropriate form.

Unless it is known that Form B was administered, use the columns of tables referring to Form A.

The following paragraphs explain the use of the tables for single administration comparisons:

A compensatory program administrator is interested in comparing the scores for a given school with the scores from the students in the ESAA sample. This school has about a 60-percent minority enrollment and about 55 percent of the school's students are eligible to receive Title I funds. Since these figures place the school somewhere between the averages for the Basic and Pilot schools in the ESAA sample, the general (pooled) tables will be used for making comparisons. The school is an elementary school where the California Achievement Tests (CAT) were administered about a month and a half before the end of the school year. Level-2 was administered to grade 3 and level-3 was administered to grades 4 and 5. The test form was not noted, so Form A tables will be used. Hence, the tables of interest to this administrator are Tables 9-14. The average percentile scores for each grade, as reported by the publisher, were as follows:

Grade 3 Reading - 13th percentile
Grade 3 Math - 9th percentile
Grade 4 Reading - 11th percentile
Grade 4 Math - 11th percentile
Grade 5 Reading - 14th percentile
Grade 5 Math - 13th percentile

Based on the ESAA sample, rather than the publisher's normative sample, the percentiles for each grade are:

Grade 3 Reading - 22nd percentile (Table 9)
Grade 3 Math - 16th percentile (Table 12)
Grade 4 Reading - 23rd percentile (Table 10)
Grade 4 Math - 22nd percentile (Table 13)
Grade 5 Reading - 35th percentile (Table 11)
Grade 5 Math - 27th percentile (Table 14)

2. GAIN COMPARISONS

Teachers and administrators are often interested in assessing change over a given school year. Tables 43-49 were constructed to provide a means of comparing the gains attained by a given set of students to the gains exhibited by the ESAA sample. Information is available only for the overall ESAA sample in grades 3, 4, 5, 10, 11, and 12. Comparisons are possible only for scale scores on the California Achievement Test (CAT), and the Iowa Silent Reading Test at the secondary level. At the elementary level, gains based on ESAA scale scores, which were derived from a restandardization of the CAT, are also available; however, these will be of little use unless a copy of the ESAA restandardization of the CAT is also available.

As an illustration, suppose a school district has initiated a new compensatory education program at the elementary level and wishes to evaluate its effectiveness. As part of the evaluation the CAT is administered to all of its students in both the fall and spring. The gains during this school year can then be compared to the gains registered by the ESAA sample. Note that, at the secondary level, only mathematics scores can be considered, since the ISRT was not administered. The district finds the following distributions at the indicated grade levels:

Grade 3 Reading:	No gain - 12% of the students
	Less than 26 points - 50% of the students
	More than 50 points - 20% of the students
Grade 3 Math:	No gain - 8% of the students
	Less than 26 points - 35% of the students
	More than 50 points - 25% of the students
Grade 4 Reading:	No gain - 16% of the students
	Less than 26 points - 50% of the students
	More than 50 points - 18% of the students
Grade 4 Math:	No gain - 20% of the students
	Less than 26 points - 48% of the students
	More than 50 points - 20% of the students

Grade 5 Reading:	No gain - 25% of the students
	Less than 26 points - 53% of the students
	More than 50 points - 21% of the students
Grade 5 Math:	No gain - 26% of the students
	Less than 26 points - 50% of the students
	More than 50 points - 18% of the students
Grade 10 Math:	No gain - 43% of the students
	Less than 26 points - 65% of the students
	More than 50 points - 18% of the students
Grade 11 Math:	No gain - 48% of the students
	Less than 26 points - 69% of the students
	More than 50 points - 12% of the students
Grade 12 Math:	No gain - 51% of the students
	Less than 26 points - 70% of the students
	More than 50 points - 12% of the students

Considered in isolation these data would have little meaning, although the large percentages of students registering no gain indicate an area of possible concern. Is this situation normal? Is the compensatory program having no effect? Tables 43-49 offer added data to help in answering these questions. For the ESAA sample the corresponding percentages were as follows:

Grade 3 Reading:	No gain - 24% of the students
(Table 43)	Less than 26 points - 56% of the students
	More than 50 points - 12% of the students
Grade 3 Math:	No gain - 15% of the students
(Table 46)	Less than 26 points - 42% of the students
	More than 50 points - 21% of the students
Grade 4 Reading:	No gain - 32% of the students
(Table 44)	Less than 26 points - 56% of the students
	More than 50 points - 17% of the students

Grade 4 Math:	No gain - 26% of the students
(Table 47)	Less than 26 points - 53% of the students
	More than 50 points - 15% of the students
Grade 5 Reading:	No gain - 33% of the students
(Table 45)	Less than 26 points - 60% of the students
	More than 50 points - 15% of the students
Grade 5 Math:	No gain - 30% of the students
(Table 48)	Less than 26 points - 57% of the students
	More than 50 points - 14% of the students
Grade 10 Math:	No gain - 39% of the students
(Table 49)	Less than 26 points - 60% of the students
	More than 50 points - 25% of the students
Grade 11 Math:	No gain - 44% of the students
(Table 49)	Less than 26 points - 65% of the students
	More than 50 points - 20% of the students
Grade 12 Math:	No gain - 47% of the students
(Table 49)	Less than 26 points - 68% of the students
	More than 50 points - 19% of the students

This shows that the district's elementary students were performing consistently better than the ESAA sample. At the same time, the secondary students were exhibiting less gains than the ESAA sample, lending support to a claim of beneficial impact of the compensatory program at the elementary level. Note that the selection of points (0, 25, 50 percent) in this example was entirely arbitrary, and the user may choose other points on which to make the comparisons.

3. CHARTING ACADEMIC PROGRESS

Figures 1-8 can be used to assist in charting the academic progress of an individual student, a classroom, a school, or a district in relation to the progress shown by the ESAA sample. Profiles of both CAT and ESAA scale scores are provided; however, the latter can be used only after reference to the tables provided in the ESAA restandardization report. Profiles are provided only for

grades 3, 4, and 5, since no other elementary grades were sampled and the longitudinal sample at the secondary level was too small to provide a stable profile. Examples will now be presented to illustrate the use of Figures 1-4 and the use of Figures 5-8:

Example 1: A school wishes to compare its achievement profile (in reading) with the profile for the ESAA sample. The CAT is administered in the spring and the average reading scores are as follows: grade 3=349, grade 4=356, grade 5=396. To compare these scores with those for the ESAA sample, first copy Figure 3 and then plot the school's scores on this copy (stars). The resulting figure should be like that in Exhibit 1. The 'profile' provided by these points should be compared with the dashed profile in Figure 3, since these points represent scores for different groups at the same time (a cross-sectional sample). Exhibit 1 shows that this school's average achievement levels are close, but consistently higher than the corresponding points for the ESAA sample.

Example 2: Another school institutes a new mathematics program at the elementary level. The school wishes to evaluate the effectives of this program and decides to administer the CAT to all of its students at the beginning and end of the school year. These exams were not given previously, so no comparison with previous achievement within the school is possible. It is also felt that the program's effects may be cummulative, with greater evidence of impact being associated with more years' exposure to the program. In this case, the school is interested in charting the progress of a fixed group of students over an extended period of time (a longitudinal sample). Figure 4 can be used to provide benchmark data for assessing this progress. To illustrate, consider the 3rd graders involved in the first year of the program. Their scores over the first three years of the program were:

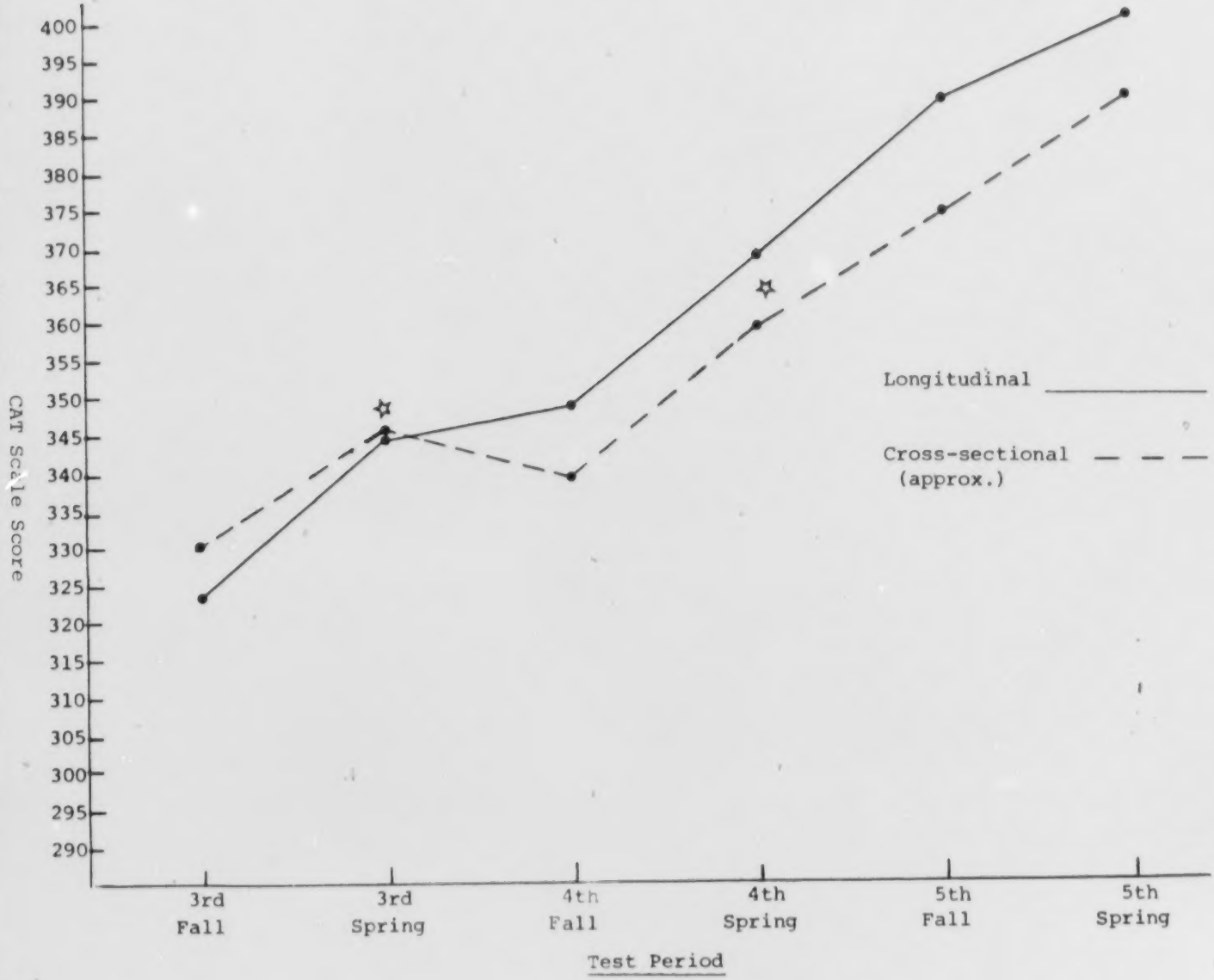


Exhibit 1. The Use of Figures 1-4 to Make Longitudinal Comparisons

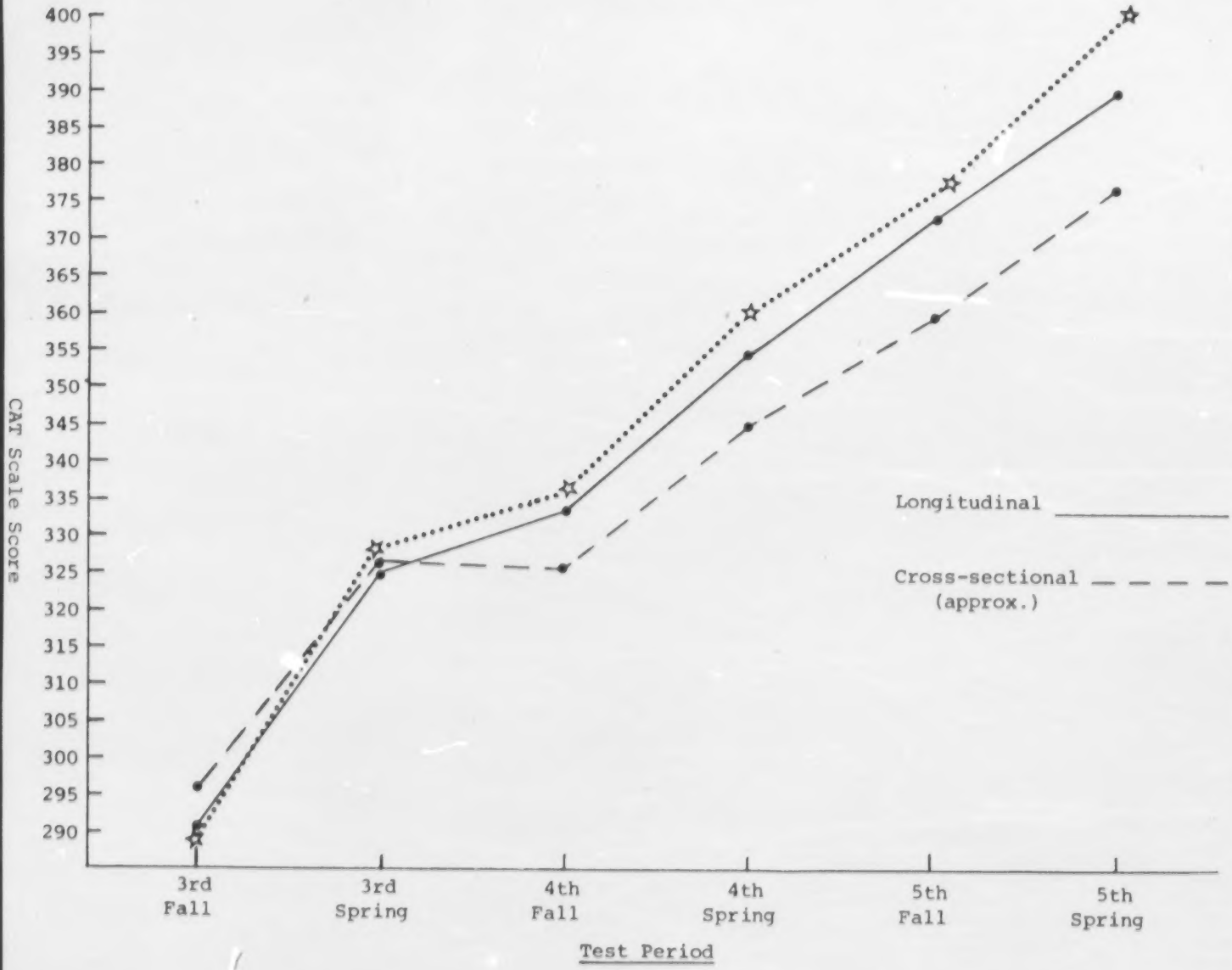


Exhibit 2. The Use of Figures 1-4 to Make Longitudinal Comparisons

	Fall	Spring
Grade 3	289	329
Grade 4	335	360
Grade 5	376	402

To chart these, (a) copy Figure 4 and (b) plot these points (stars) on the copy. The resulting figure should be like that in Exhibit 2 with the dotted profile belonging to this particular school. In this case there is some evidence that the program may, indeed, have had an effect. The students start at a point slightly below that of the ESAA longitudinal sample (the solid profile), but their profile crosses during the first year and the two profiles appear to be diverging over time, beneficially.

Example 3: A school may be interested in obtaining a more refined estimate of its students' academic progress by making comparisons to subgroups within the ESAA sample whose academic standing is more closely related to that of the school. Although there are numerous students who transfer in and out of a school, there is also a great deal of continuity, so comparisons between the school and the ESAA sample could reasonably be made using Figures 7 and 8. Suppose that CAT reading scores are obtained twice a year in a given school. If this is done for several years, the progress of each grade could be plotted on Figure 7. First, make a copy of Figure 7 and then plot the obtained points on the copy. To illustrate, suppose the 3rd grade in a given year is followed over a three year interval. The reading scores obtained are:

	Fall	Spring
Grade 3	280	301
Grade 4	325	347
Grade 5	376	393

The resulting figure should be like that in Exhibit 3, with the dashed line representing the school's profile. This shows that the school has substantially improved itself, in relation to the ESAA sample over this three year period.

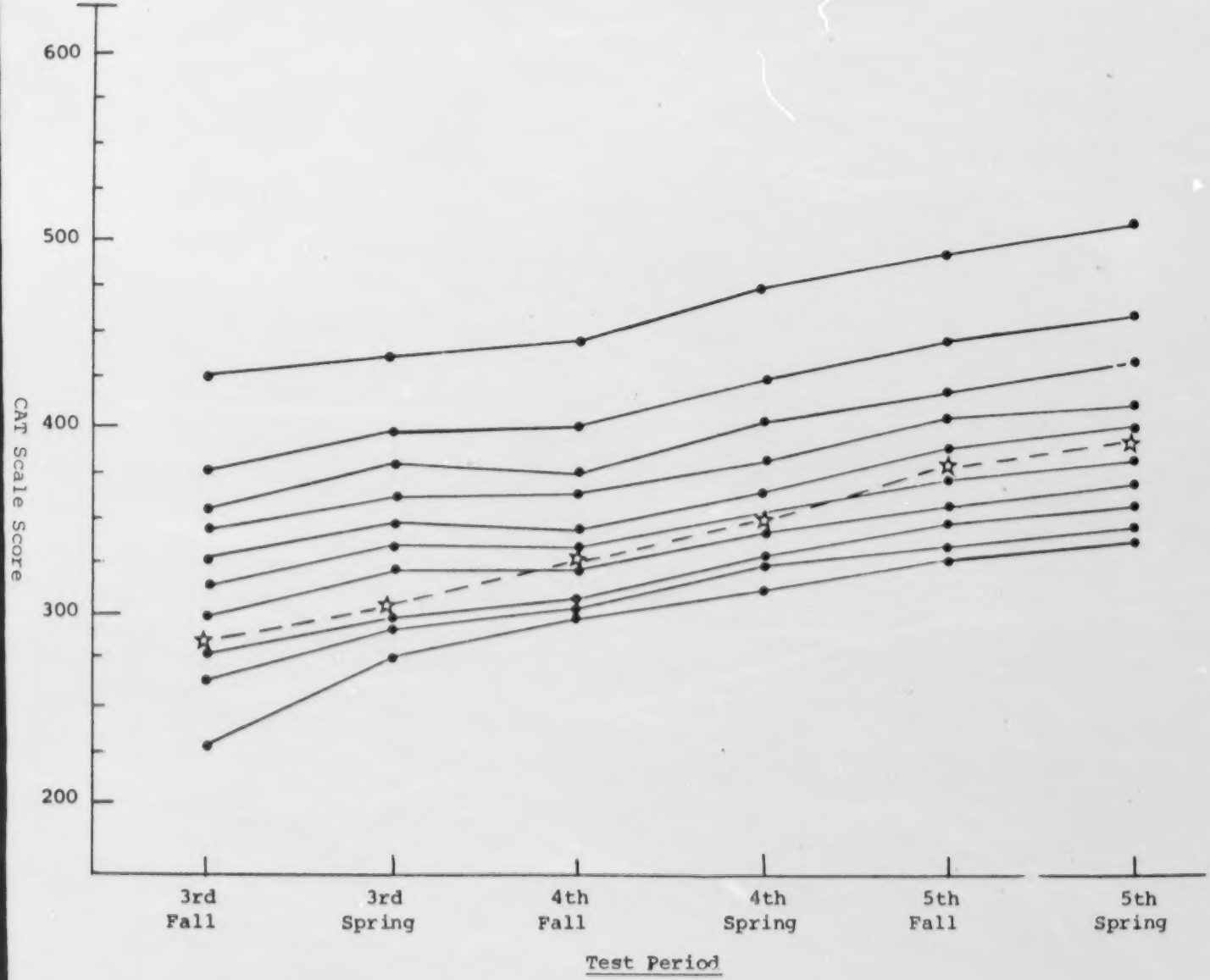


Exhibit 3. The Use of Figures 5-8 for Longitudinal Comparisons

4. A COMPREHENSIVE LIST OF TABLES

Table 1. Fall, Total Reading Scores: Grade 3, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1	44	60	1	1	48-49	60
2	2-3	45-46	61-62	2	2-3	50	61
3	4-5	47	63	3	3-5	51	62
4	6-8	48	64	4	6-7	52	63
5	9	49	65	5	9	53	64
6	11	50	66	6	10	54	65
7	13	51	67	7	12	55	66
8	15	52	68	8	14	56	67
9	17	53	69	9	17	57	68
10	19	54	70	10	19	58	69
11	20	55	71	11	20	59	70
12	21	56	72	12	22	60	71
13	23	57	73	13-14	26	61	72
14	25	58-59	74	15	27	62-63	73
15	26	60-61	75	16	30	64	75
16	27	62	76	17	31	65-66	76
17	29	63-64	77	18	32	67	78
18	30	65	78	19	33	68	79
19	31	66-67	79	20	34	69-70	80
20	33	68-69	80	21-22	38	71	81
21-22	34	70	81	23-24	39	72	82
23	35	71	82	25	40	73	83
24	36	72-73	83	26	41	74	84
25	37	74-76	84	27	42	75	85
26	39	77	85	28	43	76	86
27	40	78-79	86	29	44	77	87
28	41	80-82	87	30	45	78-79	88
29	42	83	88	31	47	80-81	89
30	43	84-85	89	32	48	82	90
31	44	86	90	33-34	49	83-84	91
32	45	87-88	91	35-36	50	85	92
33	47	89	92	37	51	86	93
34-35	48	90-91	93	38	52	87-88	94
36	50	92	94	39-40	53	89-90	95
37	51	93-94	95	41	54	91-92	96
38	52	95	96	42	55	93-94	97
39-40	53-54	96	97	43-44	56	95-96	98
41-42	56	97	98	45-46	57	97-99	99
43	57-58	98-99	99	47	59		

Table 2. Fall, Total Reading Scores: Grade 4, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	40-41	61	1	1-3	42	61
2	3-5	42	62	2	4-6	43	62
3	6-7	43	63	3	6-7	44	63
4	8-9	44	64	4	8-9	45	65
5	10-11	45-46	66	5-6	10-11	46	66
6	12	47	67	7	13	47	67
7	13	48-49	68	8	15	48-49	69
8	14	50	69	9	17	50	70
9	15-17	51-52	70	10	18	51-52	72
10-11	18	53-54	71	11	20	53	73
12	19	55	72	12	21	54	74
13	20-21	56-57	73	13	23	55	75
14	22	58	74	14	24	56	76
15	24	59	75	15	25	57	77
16	25	60	76	16	26	58	78
17	26	61-62	77	17	27	59	79
18	27	63-64	78	18	29	60	80
19	28-29	65-66	79	19	30	61-62	81
20	31	67	80	20	31	63	82
21	32-33	68-69	81	21	32	64-65	83
22	34	70-71	82	22	34	66	84
23	35-36	72-73	83	23	35	67-68	85
24	38	74-75	84	24	36	69	86
25	39-40	76	85	25	37	70	87
26	42	77	86	26	39	71-72	88
27	44	78	87	27	40	73	89
28	46	79	88	28	42	74-76	90
29	47	80-81	89	29	43	77-79	91
30	48	82-83	90	30-31	44	80-81	92
31	50	84-85	91	32	45	82-83	93
32	52	86	92	33	46	84	94
33	53	87	93	34	48	85-87	95
34	54	88	94	35	50	88-90	96
35	55	89-90	95	36	52	91	97
36	56	91-92	96	37	54	92-93	98
37	58	93-94	97	38-39	55	94-99	99
38	59	95-96	98	40	57		
39	60	97-99	99	41	59		

Table 3. Fall, Total Reading Scores: Grade 4, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	38	65	1	1-3	38	65
2	6-7	39	66	2	4-5	39	66
3	9	40-41	67	3	6	40	67
4	11	42	68	4	8	41	68
5	13	43	69	5	10	42	69
6	16	44-45	70	6	12	43	70
7	20	46	71	7	13	44	71
8	21	47	72	8	16	45	72
9	23	48	73	9	18	46-47	73
10	27	49	74	10	20	48	74
11	28	50	75	11	22	49-50	75
12	30	51-52	76	12	24	51	76
13	32	53-54	77	13	26	52-53	77
14	34	55	78	14	28	54	78
15	35	56	79	15	29	55	79
16	37	57	80	16	31	56	80
17	39	58-59	81	17	33	57-58	81
18	41	60-61	82	18	34	59-61	82
19	42	62-63	83	19	37	62	83
20	44	64	84	20	39	63-64	84
21	46	65	85	21	41	65	85
22	48	66-67	86	22	42	66-67	86
23	49	68-69	87	23	43	68-70	87
24	50	70-71	88	24	44	71-73	88
25	51	72-73	89	25	47	74-75	89
26	52	74	90	26	48	76	90
27	53	75-76	91	27	49	77	91
28	55	77-78	92	28	51	78-79	92
29	56	79-81	93	29	53	80-82	93
30	57	82-83	94	30	54	83-84	94
31	58	84-85	95	31	56	85-86	94-95
32	59	86-88	96	32	58	87-89	96
33	60	89-92	97	33	59	90-91	97
34	61	93-95	98	34	60	92-94	98
35	62	96-99	99	35	62	95-99	99
36	63			36	63		
37	64			37	64		

Table 4. Fall, Total Reading Scores: Grade 5, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	38	65	1	1	38-39	65
2	4-5	39	66	2	2	40	66
3	6	40	67	3	3-5	41	67
4	8-10	41	68	4	6	42	68
5	12	42-43	69	5	8	43	69
6	15	44	70	6	10	44	70
7	17	45	71	7	12	45-46	71
8	20	46	72	8	13	47	72
9	21	47-48	73	9	16	48	73
10	23	49-50	74	10	18	49-50	74
11	25	51	75	11	20	51	75
12	28	52	76	12	22	52	76
13	29	53-54	77	13	24	53-54	77
14	31	55	78	14	29	55	78
15	34	56-57	79	15	31	56-57	79
16	35	58	80	16	33	58	80
17	37	59	81	17	35	59	81
18	38	60-61	82	18	37	60-61	82
19	40	62-63	83	19	39	62-65	83
20	43	64-65	84	20	41	66	84
21	44	66	86	21	43	67-68	85
22	46	67-68	87	22	44	69	86
23	48	69-70	88	23	45	70-71	87
24	49	71-72	89	24	47	72	88
25	50	73-75	90	25	49	73-75	89
26	53	76-78	91	26	51	76	90
27	54	79-80	92	27	52	77-79	91
28	55	81-83	93	28	53	80-81	92
29	56	84-85	94	29	55	82-84	93
30	57	86-88	95	30	56	85	94
31	58	89-91	96	31	57	86-87	95
32	58	92-94	97	32	58	88-90	96
33	60	95-97	98	33	59	91-93	97
34	61	98-99	99	34	60	94-98	98
35	62			35	62	99	99
36	63			36	63		
37	64			37	64		

Table 5. Fall, Total Math Scores: Grade 3, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	39	58	1	1-4	43	56
2	4-5	40-41	59	2	5-6	44	57
3	6-7	42-43	60	3	7-8	45	58
4	8-9	44	61	4	9	46	59
5	10-11	45-46	62	5	11	47	60
6	12	47-48	64	6	12	48	62
7	14	49	65	7	13	49	63
8	15-16	50	67	8	15	50	65
9	18	51	68	9	16	51	66
10	19	52	69	10	17	52	67
11	20	53	70	11	19	53	68
12	21	54-55	71	12	20	54-55	69
13	22-24	56-57	72	13	21	56	70
14	25	58	74	14	23	57	71
15	26	59	75	15	25	58	72
16	28	60	76	16	27	59	73
17	30	61	77	17	28	60	74
18	32	62	78	18	29	61	75
19	33	63	79	19	30	62	76
20	35	64-65	80	20	31	63	77
21	36	66-67	81	21	32	64	78
22	37	68	82	22	33	65	79
23	39	69	83	23	34	66	80
24	42	70	84	24	35	67	81
25	43	71-72	85	25	36	68	82
26	44	73-74	86	26	37	69-70	84
27	45	75	87	27	38	71-73	85
28	46	76	88-89	28	40	74	86
29-30	48	77-78	89	29	41	75	87
31	49	79-81	90	30	42	76-77	89
32	50	82-83	91	31	43	78-79	90
33	51	84	92	32	45	80-82	91
34	52	85-86	93	33	46	83	92
35	53	87-89	94	34	48	84	93
36	54	90-92	95	35	49	85-86	94
37	55	93-95	96	36-37	50	87-89	95
38	57	96-98	97	38-39	51	90-92	96
		99	99	40	52	93-95	97
				41	54	96-97	98
				42	55	98-99	99

Table 6. Fall, Total Math Scores: Grade 4, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-2	43-44	59	1	1-2	42	59
2	3-4	45	60	2	3-4	43	60
3	5	46	61	3-4	5-6	44-45	61
4	6-7	47	62	5	7	46	62
5	8-9	48	63	6	8-9	47	63
6	9-12	49	64	7	10	48	64
7	13	50	65	8	11-12	49	65
8	14-15	51-52	67	9	14	50-51	67
9	16	53	68	10	15	52-53	68
10	17-18	54	69	11	16	54	69
11	19-20	55	70	12	18	55	70
12	21	56-58	71	13	19	56	71
13	22	59-62	72	14	22	57-58	73
14	24	63	73	15	23	59	74
15	25	64	74	16	24	60	75
16	26	65	75	17	25	61-62	76
17	27-29	66-67	76	18	27	63-64	77
18-19	30	68-69	77	19	29	65-67	78
20	31	70-71	78	20	31	68-70	79
21	32-34	72	79	21-22	32	71	80
22	36-37	73	80	23	34	72-73	81
23	38	74-75	81	24	36	74	82
24-25	39-40	76	82	25	38	75-76	83
26	41	77	83	26	39	77	84
27	42	78-79	84	27	40	78	85
28	43	80	85	28	42	79-80	86
29	44	81	86	29	43	81-82	87
30	46	82-83	87	30	44	83	88
31	47	84	88	31	45	84	89
32	48	85	89	32	48	85-86	90
33	49	86-87	90	33	50	87-88	91
34	50	88-89	91	34-35	51	89-90	92
35	51	90	92	36	52	91-92	93
36	52	91-92	93	37	53	93-94	94
37	53	93-94	94	38-39	54	95-96	95
38	54	95	95	40	56	97	97
39	55	96	96	41	57	98	98
40	56	97	97			99	99
41	57	98	98				
42	58	99	99				

Table 7. Fall, Total Math Scores: Grade 4, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	42-43	61	1	1-5	43	63
2	6-7	44	62	2	6-8	44	65
3	9	45	63	3	10	45	66
4	11	46	64	4	12	46	67
5	14	47	65	5	14	47	68
6	16	48-49	66	6	15	48	69
7	17	50-51	67	7	18	49	70
8	18	52-53	68	8	22	50-51	71
9	22	54	69	9	23	52-54	72
10	23	55	70	10	25	55	73
11	25	56-57	71	11	26	56	74
12-13	28	58	72	12	27	57-59	75
14	29	59-60	73	13	29	60	76
15	30	61	74	14	32	61-62	77
16	31	62-63	75	15	34	63	78
17	33	64-65	77	16	36	64-65	79
18	35	66-67	78	17	38	66-67	80
19	37	68-69	79	18	39	68-70	81
20	38	70	80	19	40	71-72	82
21	39	71-72	81	20	42	73-74	83
22	41	73-74	82	21	44	75	84
23	43	75	83	22	46	76	85
24	44	76	84	23	47	77	86
25	45	77-79	85	24	48	78-80	87
26-27	46	80-82	86	25	49	81-82	88
28	48	83	87	26	50	83	89
29	49	84	88	27-28	51	84-85	90
30	50	85-86	89	29	53	86	91
31	51	87-88	90	30	54	87-88	92
32	52	89-91	91	31-32	55	89-90	93
33	53	92	92	33-34	56	91-92	94
34	55	93	93	35	57	93	95
35-36	56	94	94	36	58	94-95	96
37	57	95	95	37-38	59	96	97
38	58	96-97	96	39-40	60	97-98	97-98
39-40	59	98	96-97	41	61	99	99
41	60	99	98-99	42	62		

Table 8. Fall, Total Math Scores: Grade 5, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	43	56	1	1-3	40-41	59
2	4-5	44	57	2	4-5	42-43	60
3	6-8	45	58	3	6-8	44-45	61
4	9	46	59	4	10-12	46	62
5	11	47	60	5	13	47	63
6	13	48	61	6	14	48-49	64
7	14	49-50	62	7	17	50	65
8	16	51	63	8	20	51	66
9	18	52-53	64	9	23	52	67
10	19	54	65	10	25	53	68
11	20	55-56	66	11	26	54	69
12	23	57	67	12	27	55	71
13	24	58	68	13	28	56-57	72
14	25	59-60	69	14	29	58	73
15	28	61	70	15	30	59-61	74
16	29	62-63	71	16	31	62-63	75
17	30	64	72	17	32	64-65	76
18	33	65-66	73	18	34	66	77
19	34	67-68	74	19	35	67	78
20-21	35	69-70	75	20	37	68	79
22	37	71	76	21	39	69-70	80
23	38	72-73	77	22	41	71-72	81
24	39	74-75	78	23	42	73-74	82
25	40	76-78	79	24	43	75-76	83
26	41	79	80	25	44	77	84
27	42	80-81	81	26	45	78	85
28	43	82	82	27	46	79-80	86
29	44	83	83	28-29	47	81-82	87
30	45	84	84	30	49	83	88
31	46	85	85	31	50	84-85	89
32	47	86	86	32	51	86-87	90
33	48	87-88	87	33	52	88-89	91
34	49	89-91	88	34-35	53	90-91	92
35	50	92	89	36	54	92-94	93
36	51	93	90	37	55	95	94
37-38	52	94	91	38	56	96	95
39	53	95-96	92	39	57	97	96
40-41	54	97	93			98	97-98
42	55	98	94			99	98-99
		99	95-99				

Table 9. Spring, Total Reading Scores: Grade 3, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-2	40	58	1	1	38	53
2	2-4	41	59	2	2-3	39	54
3	5-6	42	60	3	4-7	40	55
4	7-8	43	61	4	8	41	56
5	9-10	44	62	5	9-11	42	58
6	11	45	63	6	12	43	60
7	13-14	46	64	7	14	44-45	61
8	15	47-48	65	8	16	46	63
9	16	49	66	9	18	47	65
10	18	50-51	67	10	20	48	66
11	19	52	68	11	22	49	67
12	21	53-54	70	12	24	50	69
13	22	55	71	13	26	51	70
14	23	56-57	72	14	27	52	71
15	25	58-59	73	15	28	53	72
16	26	60-61	74	16	29	54	73
17	27	62-63	75	17	31	55	74
18	28	64	76	18	32	56	76
19	30	65-66	77	19	33	57-58	77
20	31	67	78	20	34	59-60	78
21	32	68	79	21	35	61	79
22	33	69-70	80	22	36	62-63	80
23	34	71	81	23	37	64	81
24	35	72	82	24	38	65	82
25	37	73-74	83	25	39	66	83
26	38-39	75-76	84	26	40	67-68	84
27	41	77	85	27	41	69-70	85
28	42	78-79	86	28	42	71	86
29	43	80	87	29	43	72-73	87
30-31	44-46	81	88	30	44	74	88
32	47-49	82	89	31	45	75-76	89
33-34	51	83	90	32	46	77	90
35	52	84	91	33	47	78-79	91
36	53	85-86	92	34	48	80-81	92
37	55	87-88	93	35	49	82-83	93
38	56	89-90	94	36	50	84-85	94
39	57	91-92	95	37	51	86-88	95
		93-94	96			89-90	96
		95	97			91-93	97
		96-97	98			94-96	98
		98-99	99			97-99	99

Table 10. Spring, Total Reading Scores: Grade 4, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-2	38	64	1	1	38	66
2	3	39	65	2	2-3	39-40	67
3	4-6	40	66	3	4	41	68
4	7	41	67	4	5	42	69
5	10	42	68	5	7	43	70
6	12	43	69	6	9	44-45	71
7	15	44	70	7	12	46	72
8	17	45-46	71	8	14	47-48	73
9	18	47	72	9	15	49	74
10	21	48	73	10	17	50	75
11	23	49-50	74	11	18	51	76
12	25	51	75	12	20	52-53	77
13	29	52-53	76	13	22	54-55	78
14	31	54	77	14	24	56	79
15	33	55	78	15	26	57	80
16	35	56	79	16	29	58-59	81
17	36	57	80	17	31	60-61	82
18	40	58	81	18	33	62-63	83
19	41	59-60	82	19	35	64-65	84
20	43	61-62	83	20	37	66	85
21	45	63	84	21	39	67-68	86
22	46	64	85	22	40	69-70	87
23	47	65-66	86	23	43	71-73	88
24	48	67-69	87	24	45	74	89
25	49	70-71	88	25	47	75-76	90
26	51	72-73	89	26	50	77-78	91
27	52	74-75	90	27	52	79-81	92
28	53	76-78	91	28	53	82-83	93
29	54	79-80	92	29	54	84-85	94
30	56	81	93	30	56	86-87	95
31	57	82-85	94	31	57	88-90	96
32	58	86	95	32	58	91-93	97
33	59	87-89	96	33	60	94-96	98
34	60	90-92	97	34	62	97-99	99
36	61	93-97	98	35	63		
37	63	98-99	99	37	65		

Table 11. Spring, Total Reading Scores: Grade 5, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-2	38	67	1	1	39	67
2	2-3	39	68	2	2	40	68
3	6-7	40	69	3	3-5	41	69
4	9	41-42	70	4	7	42	70
5	11-13	43	71	5	9	43-44	71
6	16	44-45	73	6	11	45	73
7	18	46	74	7	14	46-47	74
8	20	47	75	8	18	48-49	75
9	23	48-49	76	9	21	50	76
10	25	50	77	10	23	51-52	77
11	28	51	78	11	25	53-54	78
12	31	52-53	79	12	29	55-56	79
13	33	54	80	13	33	57	80
14	35	55	81	14	35	58	81
15	36	56	82	15	36	59	82
16	38	57-58	83	16	38	60	83
17	39	59-60	84	17	40	61	84
18	40	61-62	85	18	42	62-63	85
19	43	63-64	86	19	43	64	86
20	45	65-66	87	20	46	65-66	87
21	46	67-68	88	21	48	67	88
22	47	69-70	89	22	50	68-70	89
23	48	71-72	90	23	52	71-72	90
24	49	73-74	91	24	53	73-74	91
25	52	75-77	92	25	54	75-77	92
26	53	78-80	93	26	55	78-80	93
27	54	81-83	94	27	56	81-83	94
28	56	84-86	95	28	57	84-86	95
29	57	87-90	96	29	58	87-89	96
30	58	91-93	97	30	59	90-92	97
31	59	94-95	98	31	60	93-94	98
32	60	96-99	99	32	61	95-99	99
33	61			33	62		
34	62			34-35	63		
35	63			36	64		
36	64			37	65		
37	66			38	66		

Table 12. Spring, Total Math Scores: Grade 3, Test Level-2

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	44	56	1	1-3	46	58
2	3-5	45	57	2	4-5	47	60
3	5-7	46-47	58	3	5-7	48	62
4	8-9	48-49	60	4	8	49	63
5	9-10	50	61	5	9-10	50	64
6	10-12	51-52	62	6	12	51-52	65
7	13	53	63	7-8	13-15	53-54	66
8	14	54	64	9	16	55-56	67
9	15-16	55	65	10	17	57-58	69
10	17	56-57	66	11	19	59	70
11	18-19	58	67	12	21	60-61	72
12	20	59	68	13	23	62-64	73
13-14	21	60	69	14	24	65	74
15	22-23	61	70	15-16	26	66	75
16	25	62	71	17	27	67	76
17	26	63	72	18	28	68-69	77
18	27	64-65	73	19	29	70	78
19	28	66-67	74	20	30	71	79
20	29	68-70	75	21	31	72	80
21	30	71-72	76	22	32	73-74	81
22	31	73-74	77	23	33	75-76	82
23	32	75-76	78	24	35	77	83
24	33	77	79	25	38	78-79	84
25	34	78	80	26	39	80-81	85
26	35	79-80	81	27	40	82-83	86
27-28	36	81-82	82	28	41	84-85	87
29	38	83	83	29-30	42	86-88	88
30	39	84	84	31	43	89-90	89
31	40	85	85	32	45	91	90
32-33	42	86	86	33	46	92-93	91
34	43	87-88	87	34-35	47	94	92
35	45	89	88	36	48	95	93
36	46	90	89	37	50	96	95
37	47	91	90	38	52	97	96
38	48	92-93	91	39-41	54	98	97
39	49	94	92	42-43	55	99	98-99
40	51	95	93	44-45	57		
41	52	96	94				
42	53	97	95				
43	55	98	96				
		99	97-99				

Table 13. Spring, Total Math Scores: Grade 4, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	42-43	56	1	1-3	42-43	60
2	4-6	44	57	2	4-6	44	61
3	7-8	45	58	3	8	45-46	62
4	10	46	59	4	10	47	63
5	12	47	60	5	12	48-49	64
6	15	48	61	6	14	50	65
7	16	49-50	62	7	17	51	67
8	17	51-52	63	8	20	52-53	68
9	19	53-54	64	9	22	54	69
10	21	55-56	65	10	24	55	70
11	22	57-58	66	11	28	56-57	71
12	24	59	67	12	29	58	72
13	27	60	68	13	30	59	73
14	29	61	69	14	32	60-61	74
15	30	62	70	15	33	62-63	75
16	31	63	71	16	34	64-65	76
17	32	64	72	17	35	66	77
18	34	65-66	73	18-19	37	67-68	78
19	35	67-68	74	20	38	69-70	79
20	37	69-70	75	21	39	71	80
21	38	71-72	76	22	40	72	81
22	39	73-75	77	23	42	73-74	82
23	40	76-77	78	24	43	75	83
24	41	78	79	25	44	76-77	84
25	42	79-80	80	26	46	78-79	85
26-27	43	81	81	27	47	80-81	86
28	45	82-83	82	28	48	82-83	87
29	46	84	83	29	49	84-85	88
30	47	85	84	30-31	50	86-87	89
31-32	48	86-87	85	32	51	88-89	90
33	49	88-89	86	33	52	90	91
34	50	90-91	87	34-35	53	91	92
35	51	92	88	36	54	92-93	93
36	52	93-94	89	37	55	94	94
37-38	53	95	91	38-39	56	95	95
39	54	96	92	40	57	96-97	96
40-41	55	97	93	41	59	98	97
		98	94			99	97-99
		99	95-99				

Table 14. Spring, Total Math Scores: Grade 5, Test Level-3

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	43	58	1	1-3	41-42	63
2	4-6	44	59	2	5-6	43	64
3	7-8	45-46	60	3	8-9	44-45	65
4	10	47	61	4	11	46	66
5	11-13	48	62	5	13-16	47	67
6	14	49	63	6	18	48	68
7	16	50	64	7	20	49-50	69
8	18	51	65	8	23	51	70
9	19	52-53	66	9	24	52-53	71
10	21	54-55	67	10	25	54	72
11	23	56-57	68	11	26	55-56	73
12	25	58-59	69	12	28	57	74
13	27	60-61	70	13	29	58	75
14	28	62	71	14	30	59-60	76
15	29	63-64	72	15	33	61	77
16-17	31	65	73	16	36	62-63	78
18	32	66-67	74	17	37	64-65	79
19	33	68-69	75	18-19	38	66	80
20	36	70-72	76	20	39	67-68	81
21	37	73-74	77	21	40	69	82
22	38	75	78	22	41	70-71	83
23-24	40	76	79	23	42	72-73	84
25	41	77-78	80	24	44	74-75	85
26	42	79	81	25	46	76-77	86
27-28	45	80-81	82	26	47	78-79	87
29	46	82-83	83	27	49	80-81	88
30-31	47	84	84	28	50	82-83	89
32	48	85-86	85	29	51	84-85	90
33	49	87-88	86	30	52	86-87	91
34	50	89	88	31	53	88-89	92
35	51	90-91	89	32	55	90	93
36	52	92	90	33	57	91	94
37	53	93	91	34-35	58	92	95
38-39	54	94	92	36	59	93-95	96
40	55	95	93	37-38	60	96-97	97
41	56	96	94	39	61	98-99	98
42	57	97	95	40	62		99
		98	97				
		99	98-99				

Table 15. Fall, Total Reading Scores: Grade 10, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	42	69	1	1-3	41	69
2	4-6	43	70	2	4-6	42	70
3	7	44	71	3	8	43-44	71
4	8	45	72	4	10-12	45	72
5	10-12	46	73	5	14	46	73
6	15	47-48	74	6	16-18	47-48	74
7	18	49-50	75	7	21	49-50	75
8	19	51-52	76	8	24	51-52	76
9	20	53	77	9	26	53	77
10	23	54	78	10	29	54	78
11	26	55	80	11	32	55-56	79
12	29	56-58	81	12	33	57-58	80
13	32	59	82	13	34	59	81
14	34	60-61	83	14	36	60	83
15	35	62-63	84	15	37	61-62	84
16	38	64	85	16	38-41	63-64	85
17	40	65-66	86	17	42	65	86
18	43	67-69	87	18	44	66	87
19	44	70-71	88	19	45	67-69	88
20	45	72-73	89	20	46	70-71	89
21	47	74	90	21	48	72-74	90
22	48	75-76	91	22	49	75-76	91
23	49	77-79	92	23	50	77-79	92
24	51	80	93	24	52	80-81	93
25	53	81-83	94	25	53	82-84	94
26	54	84-85	95	26	54	85-86	95
27	56	86-87	96	27	56	87-89	96
28	58	88-89	97	28	57	90-91	97
29	59	90-93	98	29	58	92-94	98
30	60	94-99	99	30	60	95-99	99
31-32	61			31-32	61		
33-34	63			33	62		
35-36	64			34	63		
37	65			35-36	64		
38	66			37	65		
39-40	67			38	67		
41	68			39-40	68		

Table 16. Fall, Total Reading Scores: Grade 11, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	43	67	1	1-3	39	64
2	4-5	44	68	2	4-5	40	65
3	6-7	45	69	3	6-7	41	66
4	9-10	46	70	4	9	42-43	67
5	12	47	72	5	11-13	44	68
6	16	48	73	6	15-17	45	69
7	17	49-50	74	7	19	46	70
8	19	51-52	75	8	21	47	71
9	21	53	76	9	22	48	72
10	23	54	77	10	24	49	73
11	26	55	78	11	26	50-51	74
12	27	56-57	79	12	29	52-53	75
13	29	58-60	80	13	31	54	76
14	31	61-62	81	14-15	33	55	77
15	32	63	82	16	34-36	56-57	79
16	33-35	64-66	83	17	37	58-59	80
17	36	67	84	18	38	60-61	81
18	37	68-69	85	19	39	62	82
19	39	70-71	86	20	41	63-64	83
20	41	72-74	87	21	43	65-66	84
21	43	75	88	22	44	67	85
22-23	45	76	89	23	45	68-70	86
24	46	77-78	90	24	46	71-73	87
25	48	79-80	91	25	48	74	88
26	50	81-82	92	26	50	75-76	89
27-28	51	83-85	93	27	51	77-78	90
29	53	86-87	94	28	52	79-80	91
30-31	55	88-89	95	29	53	81-83	92
32	56	90-91	96	30	54	84-85	93
33	58	91-94	97	31	55	86-87	94
34	59	95-96	98	32	57	88-89	95
35	60	97-99	99	33	58	90-91	96
36-37	61			34	59	92-93	97
38	62			35	60	94	98
39	64			36	61	95-99	99
40-41	65			37	62		
42	66			38	63		

Table 17. Fall, Total Reading Scores: Grade 12, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-4	40	64	1	1-3	41	62
2	4-5	41-42	66	2	4-6	42-43	63
3	7-8	43-44	67	3	7-8	44	65
4	9-11	45	68	4	10-11	45-46	66
5	12	46	69	5	12-14	47	68
6	14-16	47-48	70	6	16	48-49	69
7	18	49	71	7	17-18	50	70
8	19	50-51	72	8	20	51	72
9	21-23	52-53	73	9	21	52-53	73
10	26	54-55	74	10	22	54-55	74
11	28	56	75	11	23	56	75
12	29	57	76	12	25	57	76
13	30	58	77	13	27	58-59	77
14	32	59-60	78	14	28	60-61	78
15	33	61-62	79	15	30	62-63	79
16	35	63-64	80	16	32	64-65	80
17	36-37	65	81	17	33	66	81
18	38	66-67	83	18	35	67	82
19	39	68-69	84	19	36	68	83
20	41	70-71	85	20	37	69-70	84
21	42	72	86	21	39	71-72	85
22	44	73-74	87	22	40	73	86
23	45	75-76	88	23	42	74-75	87
24-25	47	77-78	89	24	44	76	88
26	48	79-80	90	25	46	77	89
27	50	81-82	91	26	47	78-79	90
28	51	83-84	92	27	48	80-81	91
29	52	85-86	93	28	49	82-83	92
30	54	87-88	94	29	50	84-85	93
31	55	89	95	30	51	86	94
32-33	56	90	96	31	53	87-88	95
34	57	91-92	97	32-33	54	89-91	96
35	58	93-94	98	34	55	92-94	97
36	59	95-99	99	35-36	56	95-96	98
37	60			37	58	97-98	99
38	62			38	59		
39	63			39-40	60		

Table 18. Fall, Total Math Scores: Grade 10, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-4	41	76	1	1-5	43	75
2	5-8	42-43	77	2	6-11	44-45	76
3	10-13	44-45	78	3	13-15	46-47	77
4	15-18	46-47	79	4	17-19	48-49	78
5	20	48-49	80	5	21-23	50-51	79
6	23-25	50-51	81	6	25	52	80
7	27	52	82	7	27-30	53-54	81
8	29-32	53-55	83	8	33	55-56	82
9	34	56-57	84	9	34	57-58	83
10	37	58-59	85	10	36	59-60	84
11	40	60-61	86	11	39	61-62	85
12	42	62-64	87	12	41	63	86
13	44	65-66	88	13	43-45	64	87
14	47	67-69	89	14	46	65-66	88
15	49	70-73	90	15	47	67-69	89
16	50	74-75	91	16	48	70-71	90
17	52	76-77	92	17	50	72-73	91
18	53	78-80	93	18	52	74-75	92
19	54	81-84	94	19	54	76-78	93
20	55	85-88	95	20	55	79-81	94
21	57	89-91	96	21	56	82-83	95
22	58	92-94	97	22	57	84-86	96
23	59	95-97	98	23	59	87-90	97
24	60	98-99	99	24	60	91-95	98
25	61			25	61	96-99	99
26	62			26	62		
27	63			27	63		
28	65			28-29	64		
29-30	67			30	66		
31-32	68			31-32	67		
33	69			33-34	68		
34-35	70			35	69		
36	71			36	70		
37	72			37	71		
38	73			38	72		
39	74			39-40	73		
40	75			41-42	74		

Table 19. Fall, Total Math Scores: Grade 11, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-8	45-46	76	1	1-8	47-48	77
2	9-12	47-48	77	2	9-14	49-50	78
3	13-18	49	78	3	16-18	51-52	79
4	20-22	50-51	79	4	19-21	53	80
5	23-25	52-54	80	5	23-24	54	81
6	27-30	55-56	81	6	26-28	55-56	82
7	32	57-58	82	7	30	57-58	83
8	33	59-61	83	8	32-34	59-60	84
9	35-37	62-65	84	9	35	61-62	85
10	39	66-67	85	10	37	63-64	86
11	41	68-69	86	11	39	65	87
12	43	70-71	87	12	40-42	66-67	88
13	45	72-73	88	13	43	68-69	89
14	47	74-75	89	14	45	70-72	90
15	48	76-77	90	15	46	73-75	91
16	50	78-79	91	16	48	76-79	92
17	52	80-83	92	17-18	49	80-81	93
18	54	84-85	93	19	51	82	94
19	55	86-87	94	20	52	83-85	95
20	56	88-91	95	21	54	86-89	96
21	57	92-93	96	22	56	90-93	97
22	58	94-95	97	23-24	57	94	98
23-24	60	96-98	98	25	59	96-99	99
25	61	99	99	26-27	60		
26	62			28	62		
27-28	64			29-30	63		
29	65			31	64		
30-31	66			32	65		
32	67			33	66		
33-34	68			34	67		
35-36	69			35-36	68		
37	70			37	70		
38-39	71			38-39	71		
40	72			40-41	72		
41	73			42-43	73		
42	74			44	75		
43-44	75			45-46	76		

Table 20. Fall, Total Math Scores: Grade 12, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-13	44-45	77	1	1-8	48-50	76
2	15-19	46-47	78	2	10-15	51-53	77
3	20-22	48-49	79	3	17-19	54	78
4	23-25	50-51	80	4	20-23	55-56	79
5	27-28	52	81	5	25-26	57-58	80
6	30-32	53-54	82	6	28	59-60	81
7	34-36	55-57	83	7	30-33	61-62	82
8	38	58-59	84	8	35	63-64	83
9	39	60-61	85	9	36-39	65	85
10	41-43	62-63	86	10	40	66-67	86
11	44	64-65	87	11	41	68-69	87
12	46	66-67	88	12	43	70	88
13	47	68-69	89	13	44	71-72	89
14	48	70-73	90	14	46	73-75	90
15	50	74-76	91	15	48	76-77	91
16	52	77-78	92	16	50	78-79	92
17-18	53	79-80	93	17	51	80-82	93
19	54	81-83	94	18	53	83-85	94
20	56	84-87	95	19	54	86-87	95
21	57	88-90	96	20	55	88-89	96
22	58	91-93	97	21	57	90-92	97
23	59	94-96	98	22-23	58	93-95	98
24-25	60	97-99	99	24	60	96-99	99
26	62			25	61		
27	63			26-27	62		
28	64			28	63		
29	65			29-30	65		
30-31	66			31-32	66		
32	67			33-34	67		
33	68			35-36	68		
34	69			37	69		
35-36	70			38-39	70		
37	71			40	71		
38-39	73			41-42	72		
40	74			43-44	73		
41-42	75			45-46	74		
43	76			47	75		

Table 21. Spring, Total Reading Scores: Grade 10, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	40-41	66	1	1-3	40-41	66
2	5-7	42	68	2	4-5	42-43	67
3	8	43-44	70	3	6	44-45	69
4	10	45	71	4	8-10	46	70
5	12-14	46	72	5	12	47-48	71
6	17	47-48	73	6	15-18	49-50	72
7	19	49-50	74	7	20	51	73
8	21	51-52	75	8	23	52-53	74
9	22	53	76	9	25	54	75
10	24	54	77	10	28	55-56	76
11	27	55	78	11	30	57-58	77
12	29	56-57	80	12	31	59	78
13	32	58	81	13	33	60	79
14	34	59	82	14	35	61-62	80
15	35	60-61	83	15	36	63-64	81
16	37	62-63	84	16	37-40	65-66	82
17	40	64	85	17	41	67-68	83
18	42	65-66	86	18	42	69-70	84
19	43	67-68	87	19	43	71-72	85
20	44	69-71	88	20	44	73	86
21	46	72	89	21	46	74	87
22	47	73	90	22-23	47	75-76	88
23	48	74-75	91	24	49	77-78	89
24	50	76-79	92	25	50	79-80	90
25	51	80	93	26	51	81-83	91
26	52	81-83	94	27	52	84	92
27	53	84-85	95	28	53	85-86	93
28	55	86-89	96	29	54	87-89	94
29	56	90-91	97	30	55	90	95
30-31	57	92	98	31	56	91-92	96
32	58	93-99	99	32	57	93	97
33	60			33	59	94	98
34	61			34	61	95-99	99
35	62			35	62		
36	63			36-37	63		
37	64			38	64		
38-39	65			39	65		

Table 22. Spring, Total Reading Scores: Grade 11, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-3	39-40	64	1	1-3	45	68
2	4-5	41	65	2	4-5	46-47	69
3	6-8	42-43	66	3	7-9	48	70
4	10-12	44	67	4	10	49-51	72
5	14	45	68	5	12-14	52-53	73
6	16	46	69	6	16-18	54	74
7	18	47	70	7	20	55	75
8	21	48	72	8	22	56	76
9	23	49-50	73	9	25	57-58	77
10	26	51-52	74	10	27	59-60	78
11	28	53	75	11	29	61	79
12	30	54	76	12	31	62	80
13	32	55	77	13	33	63	81
14	34	56-57	78	14-15	35	64-65	82
15	35	58-59	79	16	36-38	66-67	83
16	35-37	60	80	17	38	68-69	84
17	38	61	81	18	39	70-72	85
18	39	62	82	19	41	73-75	86
19	41	63-65	83	20	42	76-77	87
20	42	66	84	21	44	78	88
21	44	67-69	85	22	45	79-80	89
22	46	70-71	86	23-24	46	81-83	90
23	47	72-73	87	25	48	84-85	91
24	48	74-76	88	26	49	86	92
25	49	77	89	27	51	87-88	93
26	50	78-79	90	28-29	52	89-91	94
27	51	80-82	91	30	54	92	95
28	52	83-84	92	31	55	93-94	96
29	53	85	93	32	56	95	97
30	54	86-87	94	33-34	57	96-97	98
31	55	88-89	95	35	59	98-99	99
32	56	90-91	96	36-37	60		
33	57	92-93	97	38	62		
34	58	94	98	39-40	63		
35-36	60	95-99	99	41	64		
37	61			42-43	66		
38	62			44	67		

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Table 23. Spring, Total Reading Scores: Grade 12, Test Level-2

FORM E				FORM F			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-5	40	67	1	1-4	42-43	67
2	6-7	41	68	2	5-7	44	68
3	8-10	42	69	3	9-11	45-46	69
4	12-13	43-44	70	4	13-14	47	70
5	14	45	71	5	16-18	48	71
6	16-18	46	72	6	20	49-50	72
7	20	47-49	73	7	22-24	51	73
8	22	50-52	74	8	26	52-55	74
9	23-25	53-54	75	9	27	56	76
10	27	55	76	10	29	57	77
11	29	56	77	11	30	58-59	78
12	30	57-58	78	12	32	60-61	79
13	32	59	79	13	34	62	80
14	33	60	80	14	36	63	81
15	35	61-62	81	15	38	64-65	82
16	37	63-64	82	16	39	64-68	83
17	39-41	65	83	17	41	69-70	84
18	41	66-67	84	18	43	71	85
19	42	68-69	85	19	45	72	86
20	44	70-71	86	20	46	73-75	87
21	46	72	87	21	48	76	88
22	48	73-74	88	22	50	77-78	89
23	50	75-76	89	23	51	79-81	90
24	51	77-78	90	24	52	82	91
25	52	79-80	91	25-26	53	83	92
26	53	81-82	92	27	54	84	93
27	54	83-84	93	28	55	85-86	94
28	55	85-86	94	29	56	87-88	95
29	57	87-89	95	30	57	89-90	96
30	58	90-91	96	31	59	91-93	97
31	59	92-93	97	32-33	60	94-96	98
32-33	60	94-96	98	34-35	61	97-99	99
34-35	61	97-99	99	36	62		
36	62			37	63		
37	63			38	64		
38	65			39-40	65		
39	66			41	66		

Table 24. Spring, Total Math Scores: Grade 10, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-8	49	80	1	1-7	46-47	77
2	9-15	50-51	81	2	9-12	48-49	78
3	17-19	52	82	3	14-16	50	79
4	21-23	53-54	83	4	18-20	51	80
5	25-27	55-56	84	5	22-23	52-53	81
6	30-32	57-58	85	6	26-28	54-57	82
7	34	59	86	7	30	58-59	83
8	36	60	87	8	32-34	60-61	84
9	38-40	61-63	88	9	36	62-63	85
10	42	64-65	89	10	38	64-66	86
11	43	66-69	90	11	40-41	67-68	87
12	45	70-71	91	12	43	69-70	88
13	47	72-75	92	13	45	71-74	89
14	49	76-77	93	14	47	75	90
15	51	78-80	94	15	49	76-77	91
16	53	81-84	95	16	50	78-81	92
17	55	85-88	96	17	51	82-83	93
18	56	89-92	97	18	52	84-85	94
19-20	57	93-95	98	19	54	86-88	95
21	58	96-99	99	20	56	89-91	96
22	60			21	58	92-94	97
23-24	62			22	59	95-97	98
25	63			23-24	60	98-99	99
26-27	64			25-26	61		
28	65			27	63		
29-30	66			28	64		
31	67			29	65		
32-33	69			30	66		
34	70			31	67		
35	71			32-33	68		
36	72			34-35	69		
37-39	73			36	71		
40-41	74			37	72		
42-43	76			38-40	73		
44-45	77			41-42	74		
46-47	78			43-44	75		
48	79			45	76		

Table 25. Spring, Total Math Scores: Grade 11, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-10	46-47	77	1	1-8	44	74
2	12-15	48-49	78	2	10-15	45-46	75
3	16-20	50	79	3	17-18	47	76
4	22-24	51-54	80	4	20-24	48-50	77
5	26-28	55-56	81	5	26-28	51	78
6	29-31	57	82	6	30	52-53	79
7	34	58-59	83	7	31-33	54	80
8	36-37	60-61	84	8	35	55-58	81
9	39	62-63	85	9	36-39	59-60	82
10	41	64-65	86	10	40	61-62	83
11	42-43	66-67	87	11	42	63-64	84
12	45	68-69	88	12	44	65-66	85
13	47	70-71	89	13	45	67	86
14	48	72-73	90	14	46	68-69	87
15	50	74-77	91	15	48	70-71	88
16-17	51	78-80	92	16	50	72-75	89
18	52	81-82	93	17	51	76-78	90
19	53	83-84	94	18	52	79-81	91
20	55	85-88	95	19	54	82-83	92
21	57	89-90	96	20	55	84-86	93
22	58	91-94	97	21	56	87-88	94
23	59	95-96	98	22	57	89-90	95
24	60	97-99	99	23	58	91-92	96
25	61			24	59	93-95	97
26-27	63			25	60	96-97	98
28	64			26-27	61	98-99	99
29	65			28	62		
30-32	67			29-30	63		
33-34	68			31	64		
35-36	69			32-33	66		
37	70			34	67		
38-39	71			35-36	68		
40	72			37-38	69		
41	73			39	70		
42	74			40-41	71		
43-44	75			42	72		
45	76			43	73		

Table 26. Spring, Total Math Scores: Grade 12, Test Level-5

FORM A				FORM B			
PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE	PUB. %ILE	ESAA %ILE
1	1-16	50-51	80	1	1-14	46-47	77
2	17-21	52-53	81	2	15-18	48	78
3	22-25	54-55	82	3	20-23	49-50	79
4	27-29	56-57	83	4	25-27	51-52	80
5	31-32	58-59	84	5	30-32	53-54	81
6	34-36	60-61	85	6	33-35	55	82
7	38	62-64	86	7	37-38	56-57	83
8	40-42	65-67	87	8	39	58	84
9	44	68-69	88	9	41	59-61	85
10	46	70-73	89	10	43-44	62-64	86
11	47	74-76	90	11	46	65-67	87
12	49	77-78	91	12	48	68-69	88
13	50	79-81	92	13	49	70-72	89
14	52	82-83	93	14	50	73-75	90
15	53-55	84-86	94	15	52	76-78	91
16	56	87-89	95	16	53	79-81	92
17	57	90-91	96	17	54	82-84	93
18	58	92-93	97	18	56	85-86	94
19	60	94-96	98	19	57	87-88	95
20	62	97-99	99	20-21	58	89-90	96
21-22	63			22	59	91-92	97
23	64			23	60	93-94	98
24	65			24	61	95-99	99
25	66			25-26	62		
26-27	67			27	64		
28	68			28-29	65		
29-30	69			30	66		
31	70			31-32	67		
32-33	71			33	68		
34	72			34-35	69		
35-37	73			36	70		
38-39	74			37-38	71		
40-41	75			39-40	72		
42-43	76			41	73		
44	77			42-43	74		
45-47	78			44	75		
48-49	79			45	76		

Table 27. Total Reading Scores: Pilot, Grade 3, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	11	11	12
10	26	23	26	27
15	34	33	36	37
20	42	41	45	45
25	48	48	50	50
30	54	58	56	56
35	60	65	61	62
40	65	71	66	68
45	73	76	69	76
50	78	80	73	81
55	82	82	78	85
60	86	86	82	89
65	88	88	86	92
70	90	89	90	94
75	92	91	92	96
80	93	93	94	97
85	95	96	97	98
90	96	98	99	99
95	99	99	99	99

Table 28. Total Reading Scores: Pilot, Grade 4, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	14	Level 2	14	Level 2
10	24	not used	16	not used
15	32	in spring	33	in spring
20	42		40	
25	52		48	
30	62		55	
35	67		64	
40	72		69	
45	78		76	
50	80		80	
55	82		85	
60	87		89	
65	89		91	
70	90		94	
75	92		96	
80	94		96	
85	96		98	
90	98		99	
95	99		99	

Table 29. Total Reading Scores: Pilot, Grade 4, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall	Spring	Fall	Spring
	ESAA %ILE	ESAA %ILE	ESAA %ILE	ESAA %ILE
5	15	11	12	9
10	31	26	24	18
15	41	40	34	31
20	51	52	47	42
25	63	60	53	54
30	66	65	65	64
35	72	72	75	72
40	77	76	78	77
45	81	81	83	82
50	85	84	85	84
55	86	87	88	88
60	90	92	91	90
65	92	93	93	92
70	94	95	94	93
75	96	96	96	95
80	97	97	98	96
85	99	98	98	98
90	99	99	99	99
95	99	99	99	99

Table 30. Total Reading Scores: Pilot, Grade 5, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall	Spring	Fall	Spring
	ESAA %ILE	ESAA %ILE	ESAA %ILE	ESAA %ILE
5	16	15	11	11
10	28	33	21	26
15	41	45	36	44
20	52	56	51	56
25	58	63	60	64
30	66	69	66	72
35	73	73	72	75
40	77	79	76	79
45	82	83	82	83
50	86	87	85	86
55	88	89	87	88
60	90	92	90	91
65	92	94	92	94
70	95	96	94	96
75	97	96	95	97
80	97	97	97	98
85	98	98	98	99
90	99	99	99	99
95	99	99	99	99

Table 31. Total Math Scores: Pilot, Grade 3, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	10	12	10
10	23	22	20	22
15	32	27	28	31
20	42	34	34	36
25	50	41	40	47
30	56	47	47	52
35	61	56	57	59
40	67	61	60	64
45	68	67	66	68
50	76	71	72	74
55	79	73	78	77
60	84	78	83	80
65	88	82	88	83
70	90	84	91	87
75	93	85	93	88
80	94	87	95	90
85	96	91	97	93
90	97	93	98	95
95	99	96	99	97

Table 32. Total Math Scores: Pilot, Grade 4, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	9	Level 2	7	Level 2
10	18	not used	16	not used
15	29	in spring	23	in spring
20	36		32	
25	43		37	
30	51		45	
35	58		53	
40	62		56	
45	65		65	
50	70		72	
55	76		75	
60	76		79	
65	81		81	
70	85		84	
75	88		87	
80	90		91	
85	93		92	
90	95		95	
95	95		97	

Table 33. Total Math Scores: Pilot, Grade 4, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	17	13	17	13
10	26	24	30	27
15	33	33	40	35
20	42	39	44	43
25	50	49	55	51
30	57	51	59	58
35	63	56	64	61
40	66	59	71	65
45	69	67	74	71
50	73	69	77	73
55	75	71	80	76
60	80	76	83	81
65	84	80	87	83
70	85	82	89	87
75	88	83	90	91
80	90	86	94	92
85	93	90	96	94
90	95	92	98	96
95	97	95	99	97

Table 34. Total Math Scores: Pilot, Grade 5, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	14	15	15
10	20	24	27	30
15	31	31	34	39
20	36	41	45	46
25	45	48	52	54
30	51	54	56	60
35	56	59	62	63
40	61	63	68	68
45	64	67	70	73
50	69	70	75	78
55	72	72	78	82
60	77	76	82	84
65	82	78	84	88
70	83	80	88	89
75	85	84	91	92
80	88	88	92	94
85	91	89	94	96
90	94	92	96	98
95	96	96	98	99

Table 35. Total Reading Scores: Basic, Grade 3, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	8	8	7	8
10	15	14	15	16
15	21	20	22	22
20	28	25	28	28
25	32	30	32	33
30	36	37	38	37
35	42	45	41	42
40	48	49	46	47
45	54	56	48	54
50	60	60	53	62
55	64	63	60	68
60	68	68	64	73
65	71	71	69	76
70	75	75	75	81
75	79	78	79	85
80	81	82	85	90
85	86	90	90	91
90	88	92	93	95
95	95	97	97	98

Table 36. Total Reading Scores: Basic, Grade 4, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	8	Level 2	7	Level 2
10	14	not used	14	not used
15	19	in spring	19	in spring
20	24		24	
25	31		31	
30	40		35	
35	47		42	
40	54		50	
45	59		60	
50	62		64	
55	64		68	
60	70		73	
65	73		78	
70	77		84	
75	81		86	
80	86		88	
85	90		92	
90	94		94	
95	96		99	

Table 37. Total Reading Scores: Basic, Grade 4, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	12	9	10	6
10	23	19	16	12
15	29	28	25	23
20	36	37	34	31
25	45	42	39	40
30	49	47	48	48
35	54	55	56	56
40	58	59	60	61
45	63	65	67	65
50	70	68	69	69
55	72	72	73	73
60	77	78	77	75
65	80	81	79	79
70	84	83	82	83
75	87	86	85	86
80	90	89	89	89
85	93	92	92	92
90	96	95	95	95
95	97	97	98	97

Table 38. Total Reading Scores: Basic, Grade 5, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	10	9	6	8
10	19	21	13	19
15	28	38	24	31
20	37	38	34	40
25	41	44	41	45
30	47	51	48	51
35	54	55	53	55
40	58	61	57	61
45	63	66	64	66
50	68	71	67	70
55	71	75	71	72
60	74	79	75	77
65	79	83	78	81
70	83	85	81	84
75	86	87	85	87
80	88	90	89	89
85	91	93	91	92
90	93	95	94	95
95	96	97	97	97

Table 39. Total Math Scores: Basic, Grade 3, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	8	9	10	9
10	17	15	16	15
15	23	20	23	23
20	31	25	28	26
25	37	29	32	33
30	43	34	37	36
35	49	40	44	43
40	54	45	47	48
45	56	50	53	51
50	62	54	58	57
55	66	59	62	60
60	71	63	67	65
65	76	67	73	69
70	80	69	79	74
75	84	72	83	77
80	86	75	88	80
85	90	80	92	84
90	93	84	94	88
95	95	90	97	92

Table 40. Total Math Scores: Basic, Grade 4, Test Level-2

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	7	Level 2	7	Level 2
10	16	not used	14	not used
15	23	in spring	21	in spring
20	28		30	
25	36		35	
30	42		43	
35	47		51	
40	52		53	
45	56		59	
50	60		64	
55	66		66	
60	66		71	
65	71		74	
70	74		76	
75	77		80	
80	80		84	
85	84		86	
90	88		90	
95	88		93	

Table 41. Total Math Scores: Basic, Grade 4, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	11	12	13	12
10	19	20	23	21
15	24	28	30	27
20	31	33	34	33
25	38	40	42	39
30	45	42	45	45
35	51	47	49	48
40	54	49	56	51
45	57	56	60	57
50	62	57	64	60
55	64	60	67	64
60	69	64	70	69
65	73	69	74	71
70	76	71	77	75
75	80	73	79	79
80	82	76	85	81
85	86	80	88	84
90	89	83	91	87
95	92	88	95	92

Table 42. Total Math Scores: Basic, Grade 5, Test Level-3

PUB. Percentile	Form A		Form B	
	Fall ESAA %ILE	Spring ESAA %ILE	Fall ESAA %ILE	Spring ESAA %ILE
5	10	10	10	12
10	17	19	19	22
15	26	24	25	29
20	30	32	32	34
25	37	39	38	41
30	41	43	41	47
35	45	47	47	49
40	49	52	52	55
45	51	56	55	60
50	56	59	61	65
55	58	62	63	70
60	63	66	68	72
65	68	68	70	76
70	70	70	75	78
75	72	74	80	81
80	77	79	82	85
85	81	81	85	88
90	84	85	89	91
95	88	91	92	95

Table 43. Distribution of Gain Scores
Reading, Grade 3

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	22	No Gain	24
5	25	5	32
10	28	10	32
15	32	15	33
20	36	20	55
25	40	25	56
30	44	30	56
35	48	35	75
40	52	40	76
45	57	45	76
50	60	50	88
55	64	55	88
60	68	60	87
65	71	65	95
70	74	70	95
75	77	75	95
80	80	80	96
85	83	85	97
90	84	90	98
95	86	95	98
100	88	100 or more	99
105	90		
110	91		
115	92		
120	93		
125	94		
130	95		
135	95		
140	96		
145	96		
150 or more	97		

Table 44. Distribution of Gain Scores
Reading, Grade 4

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	29	No Gain	32
5	32	5	40
10	36	10	40
15	39	15	43
20	42	20	56
25	45	25	56
30	49	30	57
35	52	35	71
40	56	40	71
45	59	45	72
50	62	50	83
55	65	55	83
60	68	60	83
65	71	65	90
70	73	70	90
75	75	75	91
80	76	80	93
85	79	85	95
90	81	90	95
95	83	95	95
100	85	100 or more	97
105	86		
110	88		
115	89		
120	90		
125	91		
130	91		
135	92		
140	93		
145	94		
150 or more	95		

Table 45. Distribution of Gain Scores
Reading, Grade 5

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	32	No Gain	33
5	36	5	41
10	40	10	41
15	44	15	50
20	48	20	60
25	52	25	60
30	57	30	63
35	60	35	77
40	65	40	77
45	68	45	77
50	71	50	85
55	75	55	88
60	78	60	88
65	80	65	92
70	82	70	95
75	85	75	95
80	86	80	96
85	88	85	97
90	89	90	97
95	91	95	97
100	92	100 or more	99
105	93		
110	94		
115	94		
120	95		
125	96		
130	96		
135	96		
140	97		
145	97		
150 or more	98		

Table 46. Distribution of Gain Scores
Math, Grade 3

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	13	No Gain	15
5	15	5	22
10	17	10	22
15	19	15	23
20	21	20	41
25	24	25	42
30	27	30	42
35	30	35	62
40	33	40	63
45	37	45	63
50	40	50	79
55	43	55	80
60	47	60	80
65	50	65	87
70	54	70	91
75	58	75	91
80	61	80	93
85	65	85	96
90	68	90	96
95	71	95	96
100	74	100 or more	98
105	76		
110	79		
115	82		
120	84		
125	86		
130	88		
135	89		
140	91		
145	92		
150 or more	94		

Table 47. Distribution of Gain Scores
Math, Grade 4

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	23	No Gain	26
5	25	5	34
10	28	10	34
15	31	15	40
20	34	20	53
25	37	25	53
30	40	30	55
35	43	35	71
40	47	40	72
45	50	45	72
50	53	50	85
55	56	55	85
60	60	60	85
65	63	65	92
70	66	70	92
75	69	75	92
80	73	80	94
85	75	85	96
90	77	95	96
95	80	95	96
100	82	100 or more	98
105	84		
110	85		
115	87		
120	89		
125	90		
130	91		
135	92		
140	93		
145	94		
150 or more	94		

Table 48. Distribution of Gain Scores
Math, Grade 5

ESAA Scale Gain	Percentile Rank	Publisher's Scale Gain	Percentile Rank
No Gain	28	No Gain	30
5	32	5	38
10	35	12	38
15	38	15	45
20	43	20	57
25	46	25	57
30	49	30	62
35	53	35	75
40	57	40	75
45	60	45	77
50	63	50	86
55	66	55	86
60	70	60	86
65	73	65	93
70	76	70	93
75	78	75	9[illegible]
80	81	80	95
85	83	85	96
90	84	90	96
95	86	95	97
100	88	100 or more	98
105	89		
110	91		
115	92		
120	93		
125	94		
130	95		
135	95		
140	96		
145	96		
150 or more	97		

Table 49. Distribution of Gain Scores: Secondary Sample

Publisher's Scale Gain	Grade 10		Grade 11		Grade 12	
	Reading Percentile Rank	Math Percentile Rank	Reading Percentile Rank	Math Percentile Rank	Reading Percentile Rank	Math Percentile Rank
No Gain	46	39	49	44	53	47
5	62	44	65	49	68	52
10	76	49	78	54	81	57
15	85	54	85	59	88	62
20	91	57	91	62	92	65
25	95	60	94	65	94	68
30	97	63	96	68	95	72
35	98	66	96	71	96	74
40	98	69	97	74	96	76
45	99	72	97	77	97	78
50	99	75	98	80	97	81
55	99	78	98	83	97	83
60	99	81	98	86	97	86
65	99	84	98	89	97	91
70	99	87	98	92	97	92
75	99	90	98	93	97	93
80	99	93	98	95	97	94
85	99	94	98	96	98	94
90	99	95	98	97	98	95
95	99	96	98	97	98	96
100 or more	99	97	98	97	98	96

Table 50. Approximate Comparison of Selected ESAA Percentiles With Anchor Test Percentiles and Corresponding Publisher's Percentile Ranks on Total Reading Scores: Grade 4

ESAA	ANCH	CAT	CTBS	GMT	ITBS	MAT	SAT	SRA	STEP
99	95	96	95	94	94	93	95	95	95
95	85	85	84	83	83	82	87	85	82
90	75	74	74	75	73	71	71	73	71
85	68	65	67	68	65	63	62	65	63
80	60	57	59	60	57	55	54	58	56
75	52	50	53	54	50	47	45	50	49
70	45	45	46	48	42	39	36	43	42
65	37	38	39	40	35	34	30	35	34
60	30	33	31	32	28	28	23	28	27
55	27	28	28	28	26	24	20	24	23
50	23	24	25	25	23	20	17	21	20
45	20	21	23	22	20	16	14	18	17
40	17	18	19	18	16	13	13	15	14
35	13	15	15	13	12	10	11	12	11
30	10	12	12	8	8	7	9	10	8
25	8	10	11	7	7	6	8	8	6
20	6	7	8	6	6	4	6	6	5
15	5	6	7	4	4	2	5	5	4
10	4	4	4	3	3	1	3	3	3
5	1	1	1	2	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1

Table 51. Approximate Comparison of Selected ESAA Percentiles and Corresponding Publisher's Percentile Ranks on Total Reading Scores: Grade 5

ESAA	ANCH	CAT	CTBS	GMT	ITBS	MAT	SAT	SRA	STEP
99	98	98	98	97	97	98	96	97	97
95	87	87	85	82	84	84	80	85	84
90	76	74	73	71	71	75	65	75	71
85	67	66	64	62	62	67	54	66	62
80	58	58	56	54	53	60	46	57	53
75	50	51	48	47	44	48	38	48	45
70	44	44	42	41	39	45	32	43	41
65	38	38	37	35	34	36	27	36	33
60	33	33	32	29	27	31	22	30	28
55	26	28	27	24	21	26	17	24	23
50	23	25	24	21	18	22	15	21	20
45	20	22	21	19	16	18	13	19	17
40	18	19	18	16	14	16	11	16	14
35	15	16	16	13	12	14	10	14	12
30	13	14	13	10	9	12	8	11	10
25	10	11	11	8	7	10	7	9	8
20	7	8	9	5	5	7	5	6	6
15	5	6	7	3	3	4	4	4	5
10	4	4	5	2	2	2	2	2	3
5	2	2	3	1	1	1	1	1	2
1	1	1	1	1	1	1	1	1	1

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